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AUDITING PRINCIPLES

Objectives • Procedures • Working Papers

PRENTICE-HALL ACCOUNTING SERIES

H. A. Finney, *Editor*

AUDITING PRINCIPLES

Objectives • Procedures • Working Papers

HOWARD F. STETTLER, CPA

University of Kansas

Englewood Cliffs, N.J.

PRENTICE-HALL, INC.

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To

WOODY MONEGAN

who contributed immeasurably

Preface

Successful auditing books in recent years have tended to receive the praise of either practitioners or teachers, but not both—a situation that has handicapped effective training of college students for private or professional auditing work. In writing this book the principal concern has been to portray accurately the work and viewpoint of the auditor in a manner that will appeal to those who teach auditing and that will prove understandable and stimulating to students.

The book represents a synthesis of the author's auditing experience with a leading national firm of public accountants and his experience in teaching the subject. The subject matter is presented as it would be seen through the eyes of a senior accountant, who must, of course, have in mind his own immediate activities and responsibilities, the needs of his principal, and the purpose and technique of the auditing steps being carried out by the junior accountants whom he is supervising. Chapters 1, 2, 17, and 18 discuss such vital considerations, at the partner level, as the audit report and its uses, and the concept of independence. Chapters 3 and 4 inquire into the matters of evidence and internal control as they affect the scope of the examination to be set by the senior accountant with the approval of his principal. Chapter 5 shows how the accounting firm is organized to carry out its work and discusses the auditor's approach to the examination of financial statements and the related working papers. The chapters dealing with the examination of the various balance sheet and income statement accounts first cover the underlying matters of internal control and standards of statement presentation before delving into the problems of verification.

The approach to the problem of verification is unique in several ways. The matter is first considered from the viewpoint of the senior accountant, who must clearly understand what it is that he expects to

learn through the application of the customary auditing procedures. A comprehensive and carefully developed enumeration of the auditor's objectives conveys this idea to the reader. Then, each of these objectives is taken up in turn, and the various procedures that the profession has developed to accomplish each objective are discussed. The purpose of this approach is to simulate the thinking of the senior accountant. His problem is to decide what questions he must answer and then to devise ways of obtaining the answers by drawing on his accounting training, common sense, and knowledge of auditing standards.

In discussing the various procedures, great care is taken to show how they should be performed and how they should be varied with the circumstances to comply with generally accepted auditing standards. The application of the procedures is further illustrated by a set of working papers based on actual audit experience. The manner in which procedures are varied to fit the degree of internal control and other variables is illustrated by summaries (at the conclusion of Chapters 6 to 15) of the applicable portions of three of the American Institute of Accountants' case studies in auditing procedures. The case studies selected pertain to companies varying in size and in the degree of internal control. Each case sets forth the accounting procedures relating to the company's internal control and then describes the auditing procedures applied in the circumstances.

A conscientious effort has been made throughout the book to emphasize the theory behind auditing procedures, and at the same time to explain carefully how the procedures are carried out. Exhaustive lists of auditing procedures have been purposely excluded, since such lists often result in the mistaken idea that an audit is simply the performance of those procedures.

The discussion of purely accounting matters has been almost entirely avoided on the assumption that the student has mastered such matters before undertaking the study of auditing. A notable exception is the brief summary of standards of statement presentation in each of the chapters dealing with the verification of balance sheet and income statement items. These summaries contain the essence of the knowledge of financial statements that the student should have acquired from his earlier accounting courses, and should help the student think of financial statements as a whole rather than as composed of independent segments. Also, the material should make the student more aware of the point of view and needs of those who use financial statements. Such awareness should serve as a counterbalance to the preoccupation with debits and credits that is so frequently found.

There is no separate chapter on professional ethics because ethics is dealt with, not abstractly, but in relation to the various problems

as they appear. However, the rules of professional conduct of the American Institute of Accountants are listed in the Appendix.

Since internal auditing is such an important phase of internal control, considerable attention has been given to the function and perspective of the internal auditor and the approach to his work; therefore, the book also serves as an introduction to internal auditing.

Whenever possible, pronouncements of the American Institute of Accountants have been referred to or quoted to make the material as authoritative and realistic as possible. The cooperation of the Institute in granting permission for such extensive use of its published material and for allowing me to adapt some problems from its uniform CPA examination is deeply appreciated as a significant contribution to the book.

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AUDITING PRINCIPLES

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1 · Audits—What and Why

The opinion of an independent public accountant concerning a set of financial statements is the best possible indication of whether those statements may be safely relied upon by persons not associated with the business in making important financial decisions. Such an opinion will ordinarily be based on a comprehensive audit examination of the statements and supporting data, and will indicate whether or not the statements present fairly the financial position of the concern and the results of its operations for the period specified.

Users of financial statements are likely to insist that such an independent opinion accompany a set of statements, since any decisions to invest or extend credit can be only as sound as the information on which the decisions are based. Without the professional opinion of an independent public accountant, financial statements are open to question, because they will normally have been prepared by the same management officials who are responsible for the operation of the business. Although the possibility is somewhat remote that those officials would present fraudulent or misleading statements, that possibility cannot be ignored in view of the serious consequences likely to result from financial decisions based on inaccurate information. Protection is also necessary against the bias likely to creep into any report which one makes on his own activities.

Why Unaudited Statements Are Not Acceptable

Behind the statements prepared by the management of a business lies a multitude of decisions in which the hopes and desires of the management may have a material effect on the picture conveyed by the statements. Thus the financial position and net income are directly affected by decisions relating to the amount to be provided for losses on doubtful receivables or on inventory items which have become obsolete, the estimated life of plant assets to be used in calcu-

lating depreciation expense, or the future expenses likely to result from guarantees on products which have already been sold.

Under these circumstances, financial statements may be colored by undue optimism, just as conversation or advertising may be colored. Looking at the matter in another way, it might be said that the investor or creditor who must rely on unaudited financial statements prepared by management is in a position similar to that of an athletic team which finds that a member of the other team is the official referee and scorekeeper.

The Certified Public Accountant

The answer to this problem concerning financial statements is obviously to have some qualified person who is independent of management examine the statements and report on his findings. The need for such a service is largely responsible for the development and growth of the public accounting profession. The profession is composed of accountants who have chosen to serve the public, rather than to serve as an employee of some business.

In most states, anyone who wishes may designate himself as a public accountant, with the consequence that such a designation is no indication that a person is qualified to render competent service. Accordingly, the designation "Certified Public Accountant" was created to indicate those persons who have proven their qualifications to render competent service to the public. Certified Public Accountant certificates are issued by each of the forty-eight states, based on requirements set by each state. These requirements are not entirely uniform, except to the extent that each state requires the applicant to pass the Uniform Certified Public Accountant Examination prepared by the Board of Examiners of the American Institute of Accountants. (The A.I.A. is the national professional organization of Certified Public Accountants.) The two and one-half day examination lasting nineteen and one-half hours represents a thorough testing of the candidate's knowledge in four fields: accounting practice, accounting theory, auditing, and commercial law. These fields include, of course, the vital area of Federal income taxes.

Other requirements for the C.P.A. certificate normally include academic education and public accounting experience. The amount of public accounting experience varies from one to five years, depending on state law and the applicant's educational qualifications. Generally speaking, applicants holding a college degree and meeting certain minimum requirements in the study of accounting and business are not required to have as much public accounting experience

as those with only a high school education or a college degree in liberal arts. Some actual public accounting experience is required by almost every state, since such experience is extremely important in a person's training to serve the public. The importance of obtaining public accounting experience may perhaps be more clearly indicated by noting that such experience serves the same vital function as the young physician's internship.

Independence

In addition to possessing adequate training and experience, the accountant who makes an audit examination for the purpose of expressing an opinion as to the fairness of a client's financial statements must act in an independent capacity. Since the accountant is not an employee of the business, his actions are not subject to supervision by the management of the business, and this situation alone creates considerable independence. Independence is also an attitude of mind, and independent thought and action are equally as important as the independent relationship between the accountant and his client. Unless the accountant is independent, his opinion is no more reliable than the statements which have been prepared by management.

Audits and Auditors

The examination upon which the opinion is based is known as an audit examination, and consequently when the public accountant is doing such work he is usually referred to as the "auditor." Since many businesses also have auditors in their own employ, the two types of auditors are usually distinguished by referring to the company auditors as "internal auditors," and using the term "independent auditors" to designate the public accountants who are engaged to examine the company's financial statements.

The term "auditor" means literally "one who hears" and dates back to the days when public accounts were accepted and approved on the basis of hearing the accounts read. Thus the original examinations of accounts merely involved hearing the accounts and transactions, and the person or persons who were responsible for examining and approving the accounts were known as auditors. Today's audit, as shall become quite evident later, involves far more than simply a hearing of the accounts.

The Auditor's Report

The auditor's opinion, based on his examination of a client's financial statements, is normally given in the form of a written report. The

report may be quite lengthy, containing analytical comments about the financial position and operating results of the business, comments about the examination which was made, and various types of recommendations. The heart of the report, however, will normally be two paragraphs describing in general terms the scope of the examination which was made, and giving the auditor's opinion based on such examination. In many cases, those two all-important paragaphs accompanying the client's financial statements may constitute the entire report, if it is felt no additional comments are necessary.

Generally, the wording of the paragraphs will follow quite closely the sample report given below, which is based on the recommended wording of the Committee on Auditing Procedure of the American Institute of Accountants.

To the Board of Directors,
ABC Company:

We have examined the balance sheet of ABC Company as of December 31, 19—, and the related statements of operations and retained income for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statements of operations and retained income present fairly the financial position of ABC Company at December 31, 19—, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Martin, Noll, and Otis
Certified Public Accountants

January 28, 19—

Although the wording of the above report has been very carefully developed and studied, and has the endorsement of the American Institute of Accountants, there is no compulsion upon the public accounting profession to render reports which are identical in form. In the wording of the report, as in the conduct of the underlying examination, the members of the profession are encouraged to exercise their individual judgment, subject only to the high standards which the profession seeks to maintain. Thus, whereas many accountants use the suggested form of report without change, others make modifications, but without departing from the fundamental points covered by the so-called "standard" form of report. For instance, one firm of accountants has used the following interesting variation:

> In our opinion the accompanying financial statements present fairly the financial position of ABC Company at December 31, 19—, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. This opinion is based on an examination of the statements which was made in accordance with generally accepted auditing standards, and included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Significance of the Report

The auditor's report is sometimes referred to as the auditor's "certificate." This term is a carry-over from the days when the auditor's report often stated, "We certify that in our opinion the accompanying financial statements are correct." Regardless of the name by which it is identified, the report is an extremely important document. It is the sole outward evidence of the major activity of the public accounting profession, and is heavily relied upon whenever financial decisions are based upon financial statements. It is also the focal point of all independent auditing procedures. The auditor must never lose sight of the fact that all his auditing procedures are directed toward enabling him to formulate and report his opinion concerning a set of financial statements.

Thus the logical place to begin the study of auditing is the auditor's report, even though in practice the report is the last step in the examination. In the following pages, each point in the report is carefully considered, and the reader should attempt to secure a complete understanding of the report and to determine exactly what the report says or does not say. Such an understanding, incidentally, has equal importance for the person who reads the report and relies on the auditor's opinion and for the auditor who is planning to report on the results of an audit examination.

Proper Addressing of the Report

The report is normally addressed to the person or group responsible for engaging the auditor. In the case of corporations, the auditor is most frequently selected by the board of directors or the stockholders, with the payment of the auditor's fees being made from corporate funds. The report will be used, however, by persons other than the ones to whom it is addressed and who pay the auditor's fees. This fact is responsible for the peculiar relationship between the auditor and his client. Even though the auditor receives his fee from

the client, he must maintain complete independence in all matters and decisions relating to the audit examination. Only in this way can the auditor hope to achieve universal acceptance of his reports. The success of such efforts is indicated by the fact that in the case of many national accounting firms the name of the firm on a report is comparable to the "sterling" mark on silver. Naturally the services of such firms are in great demand.

Whose Statements Are They?

Since the auditor's report on a client's financial statements is usually given on a separate sheet of paper rather than on the statements themselves, the report must carefully identify the statements which have been examined. This identification is made in the opening sentence, which gives the name of the business and the names and dates of the statements.

The question Whose statements are they? also refers to the matter of who is basically responsible for the representations in the statements. Because the statements accompanying the auditor's report are typed in the auditor's office, many persons reach the conclusion that the auditor is responsible for preparing the statements. Such a conclusion is incorrect, however, and will be avoided if the reader treats the word "of" in the phrase, "We have examined the balance sheet of . . ." as not only identifying the company but also indicating who is primarily responsible for the figures in the statements. The primary responsibility for the form and content of the statements rests with management, since the statements are a report by management of its stewardship covering the responsibilities with which it has been entrusted. This opinion has been expressed by the Committee on Auditing Procedure of the American Institute of Accountants in its pamphlet, *Codification of Statements on Auditing Procedure:*

> Management has the direct responsibility for maintenance of an adequate and effective system of accounts, for proper recording of transactions in the books of account, and for safeguarding the assets. It is also charged with the primary responsibility to stockholders and to creditors for the substantial accuracy and adequacy of statements of position and operations.

In view of the primary responsiblity which management assumes for the financial statements, the auditor has no right to make changes in those statements. For instance, if management has included in the inventory a substantial amount of obsolete parts valued at their orig-

character of the auditor's examination, if any, and the degree of responsibility he is taking.*

Each of the above standards, it will be noted, involves evaluation or judgment: Is the auditor's technical training and proficiency *adequate;* Has internal control been *properly evaluated* as a basis for determining the *extent* of the tests to be made; Are informative disclosures *adequate?* Thus standards relate to a level of quality to be maintained whenever decisions must be made.

General Acceptance

Since the required evaluations and decisions must of necessity be subjective, the only way of achieving an acceptable level of quality is to measure such evaluations and decisions in terms of what other auditors would have concluded if presented with identical facts and circumstances. Awareness of just what would be generally accepted by other auditors is acquired through attending addresses and discussions at professional meetings, direct inquiry of other auditors, experience gained in working for others, careful study of articles and comments in professional publications, and training gained in the classroom and through study of auditing textbooks and reference books.

A broad basis for auditing standards is necessary because there is no single set of auditing procedures which can be applied in all situations. The resulting need to select and apply appropriate auditing procedures as required by particular circumstances is one of the principal factors which justifies the classification of public accounting and auditing as a profession. If audits could be made "by the book," auditing would be little different from any of the regularly recognized trades.

Standards and Procedures Differentiated

Most of the preceding discussion has centered about auditing standards, which must be kept clearly differentiated from auditing procedures. Procedures refer to what is done, whereas standards refer to the quality of performance, involving decisions about just what is to be done, and when and how it shall be done. For instance, it is a generally accepted auditing standard that accounts receivable should be confirmed by correspondence with the debtors. This procedure is to be followed whenever practicable and reasonable and is designed to disclose the validity of the recorded receivables. The

* American Institute of Accountants, *Generally Accepted Auditing Standards* (1954).

procedure is the actual confirmation process, but the matter of standards involves a number of decisions about the procedure. Depending on the circumstances, the auditor must determine the following: whether to confirm all the accounts or only a few on a test basis; which accounts to select if only part are to be confirmed; whether to confirm at the balance sheet date or at some other date; what will constitute an adequate percentage of returns from such a request; how differences shall be investigated; and many other points. Each of these problems or questions must be resolved in terms of what a majority of auditors would do if faced with the identical situation.

No Listing of Procedures in the Report

Lastly, with respect to the matter of procedures, it should be noted that no effort is made to list the individual procedures which the auditor has applied. The report merely states that all procedures were used which the auditor considered necessary in the circumstances. The auditor's independence is asserted here, since he states, in effect, that the decisions concerning the choice of procedures were his own, and were not influenced by the preferences of the client. The auditor thus declares that he assumes full professional responsibility for the procedures which he selected. The absence of any detailed listing of procedures and the full assumption of responsibility by the auditor for the procedures which were applied might be likened to the typical arrangement involved when a physician is requested to make a complete physical check-up. The doctor chooses the tests to be made, makes the tests, and evaluates the results. If the tests are all satisfactory, the patient is so informed without being given a detailed recitation of each test and its results. If a test should show an unsatisfactory condition, then a report of the findings on that test would be made, as would always be true when the auditor's tests show that the financial statements do not present fairly the financial position and results of operations of a business.

The Opinion Paragraph

The first paragraph of the report deals primarily with the scope of the auditor's examination and is therefore commonly referred to as the scope paragraph. The second paragraph, which contains the report of the auditor's findings, is usually referred to as the opinion paragraph. The selection and use of the word opinion is extremely significant. The auditor does not certify, guarantee, nor give any other such positive indication that the statements are absolutely cor-

rect. Any expression stronger than an opinion would be illogical, for several reasons.

In the first place, the statements themselves are partly opinion, as in the case of the provision for depreciation and similar estimated items, so it would be illogical to expect the auditor's conclusion concerning the fairness of the statements to be more positive than an expression of opinion. Second, the auditor's findings are not based on a complete examination of all transactions, since practical and economic considerations make a complete examination unwarranted. With the typical examination comprised almost entirely of test-checks, the auditor's findings cannot possibly reflect absolute certainty. True, the tests will have been carefully selected, and the resulting opinion can be expected to be highly reliable, but there is always the possibility that discrepancies exist in some of the figures not covered by the tests, with the consequence that an expression of opinion is as far as the auditor should go.

Fairness

Perhaps the single most important element of the auditor's opinion relates to the question of whether the financial statements present *fairly* the client's financial position and results of operations. Fairness is a pervasive concept which extends to every phase of the financial statements. Thus the auditor's assertion as to the fairness of the statements covers such matters as the adequacy of the provisions made therein for depreciation, bad debts, and income taxes; the propriety with which items have been classified within the financial statements; and the appropriateness of the descriptions of the various amounts shown in the statements. Stated in more general terms, in order for statements to present fairly the financial position and results of operations of a business, the statements must be factual, they must fully disclose all essential information, and they must not be misleading to the average reader.

Although the auditor's report is customarily addressed to a specific individual or group, who may often have independent knowledge of certain facts, such knowledge does not justify omitting the facts from the statements. Similarly, even though certain matters may be clear to the person or group addressed because of supplementary knowledge of the situation, if the matters would not be clear to other persons not possessing such knowledge the manner in which the material is presented should be changed to clarify the situation. The auditor has no control over the use of audited statements on which he has expressed an opinion, and consequently the statements and the

auditor's report may reach the hands of persons other than those to whom the report is addressed. Unless the statements present fairly all pertinent information which is known about the financial position and operating results of the business, such third persons who may come to rely on the statements and the auditor's opinion may be misled, and as a result incur serious financial losses. Such a situation may not only be detrimental to an auditor's reputation, but as stated in Chapter 2, may also result in recovery of the losses from the auditor.

For instance, assume that an auditor's examination reveals that substantial amounts of obsolete parts and unusable materials are carried in a client's inventory at their original cost. The board of directors has engaged the auditor and is fully aware of the situation, so there might seem to be no need to comment on the situation in the statements or the auditor's report. Yet those statements might later be used as a basis for obtaining a bank loan, and if the bank suffered a loss on the loan because the bank was not fully aware of the condition of the inventory, the auditor would undoubtedly be liable to the bank for the loss. Even more important, however, would be the damaging effect on the auditor's reputation.

Generally Accepted Accounting Principles

The question of whether the financial statements have been prepared in conformity with generally accepted accounting principles introduces two additional matters of opinion: What accounting principles are generally accepted, and have the statements been prepared in conformity with such principles? Individual preferences with respect to certain accounting principles vary widely. For instance, cost is still the generally accepted basis for recording transactions and carrying forward residual values to future periods. Cost is readily determinable in most instances, and its objectivity rules out the possible influence of personal considerations. Yet many accountants feel that changes in the price level have destroyed the utility of statements prepared on a cost basis, and these accountants advocate converting all balance sheet and income statement items to a current basis.

Such differences of opinion are to be encouraged, since they produce the progressive strides which help to keep accounting abreast of the changing and expanding needs of the business world. But financial statements cannot be permitted to reflect the personal preferences of the accountant preparing them. Financial decisions are based largely on comparisons between businesses, and such comparisons are meaningless unless the financial statements being used for the comparisons have a common basis.

This common basis is achieved by applying only those accounting principles which are generally accepted, regardless of whether the accountant or auditor is in complete agreement with the principles in question. The auditor thus has an implied responsibility to point out any departures from these generally accepted principles by qualifying his opinion to that effect. The question of which accounting principles are generally accepted is one to be resolved by reference to textbooks, current literature, and the pronouncements of the Committee on Accounting Procedure of the American Institute of Accountants or of the American Accounting Association.

In addition to the matter of the auditor's opinion as to which accounting principles are generally accepted, there is also a question of opinion as to whether those principles have been properly applied in each instance. For example, although the retail method of figuring inventory is an acceptable method of approximating cost, it will give reliable results only if applied to inventory items having about the same percentage of markup. Thus the auditor must consider all factors and reach an opinion as to whether this acceptable method has been properly applied in each instance.

Consistency

Any change in the application of accounting principles by a given concern must be clearly indicated. A furniture store, for example, might decide to switch from the installment method of reporting profits on sales to the straight accrual method of reporting all profit in the year the sale is made (less an allowance for subsequent losses and expenses). The effect of such a change would be to "double up" income in the year of change, thus resulting in a substantially higher net income. Unless the statement user were informed of the change in accounting method, he might assume the store had experienced an unusually good year, whereas actually the increase in net income might have resulted entirely from the change in the handling of installment sales.

Qualifications and Exceptions

If the client places no limitations on the scope of the examination which the auditor is to perform, and if the auditor finds everything in order so that the financial statements do, in fact, present fairly the financial position and results of operations of the client in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year, then, and only then, can the auditor's report take the form outlined above. On the other

hand, if the client limits the scope of the auditor's examination so that the auditor is not able to satisfy himself that certain figures are fairly stated, or if generally accepted accounting principles have not been followed, or if they have not been consistently applied, then the auditor, in his position of trust and independence, must point out these shortcomings or deficiencies in his report. Comments on such deviations from the normal situation are referred to as "exceptions," and represent "qualifications" of the opinion which the auditor expresses. The matter of qualifications and exceptions is discussed at greater length in Chapter 17.

The Auditor's Status in the Business World

The foregoing discussion suggests that the auditor's work is highly involved and complex, and must reach to every phase of the business being examined. The auditor, in turn, must have the ability, experience, and understanding of accounting and auditing necessary to handle such an assignment. Yet many people, through lack of understanding of the purpose and requirements of the present-day examination of financial statements, have failed to realize that the auditor of today is a far cry from his counterpart of fifty years ago. Such people picture the auditor as a wizened individual wearing a green eye shade and sleeve garters. They would expect to find him perched atop a high stool, counting money or meticulously adding long columns of figures, and gaining his sole pleasure in life from the apprehension of luckless persons whose books did not balance or whose cash account was short!

Fifty years ago such a picture might have held true, since in those days the auditor performed primarily a checking function. There was little demand for an opinion on a company's financial statements, so most work the auditor did was solely for the benefit of management. Such work was designed to assure management that the bookkeeping had been done accurately and that all cash had been accounted for.

The contrast between the auditor of that day and the practitioner of the present may be made more apparent if we consider that leading auditors of today handle complete audit examinations of such supercorporations as American Telephone and Telegraph Company or General Motors Corporation. These examinations must cover every phase of the business of these companies and require the ability to comprehend the entire company operation and to plan an effective audit that may involve as many as one hundred staff men working at

plants located almost anywhere in the United States or even in foreign countries.

Individuals capable of handling work of such magnitude, and having the broad experience gained from examinations of a great variety of businesses, are understandably held in high esteem by the business world. Auditors work regularly in close contact with top management officials, and their recommendations on accounting, and business matters as well, are highly regarded. And yet many of these auditors are relatively young men, as would be expected since they are members of the fastest growing profession in the world. As evidence of this growth, there is the fact that the number of Certified Public Accountants in the United States has doubled in the past ten years!

Review Questions

1. Why are users of financial statements likely to insist that the statements be accompanied by the opinion of an independent public accountant?

2. What advantage accrues to the public through having certain persons designated as Certified Public Accountants?

3. Give the usual short-form audit report that would normally be presented on satisfactory completion of an examination of a client's financial statements.

4. For what reasons might the auditor find it necessary to qualify his report?

5. Since the audit report is written at the completion of the examination of a client's financial statements, why is the report covered in this chapter rather than in a chapter near the end of the book?

6. Who is primarily responsible for the financial statements that are accompanied by an auditor's report?

7. Distinguish between auditing standards and auditing procedures.

8. Why should the auditor's findings based on his examination of a client's financial statements be in the form of an expression of opinion rather than a statement of fact?

9. Why is it important that financial statements be based on generally accepted accounting principles?

Questions on Application of Auditing Standards

10. When are the affairs of a business likely to necessitate securing an independent public accountant's opinion on the financial statements of the business?

11. In the typical situation, the public accountant is selected by the board of directors of a corporation and paid out of funds administered under the direction of the board, but his report on the financial statements is of primary interest and value to the stockholders and creditors of the corporation. Is the public accountant in such a situation failing to heed the Biblical admonition that he not attempt to serve two masters? Explain.

12. How would you explain to a friend of yours who has had no accounting training the meaning and significance of the term "generally accepted auditing standards," which appears in the short-form report?

13. *A* is suing *B* for damages resulting from *A*'s reliance on financial statements that proved to be misleading, even though accompanied by a regular audit report and opinion given by *B*. *B* contends that he should not be liable since his examination was made in accordance with generally accepted auditing standards, and the fact that the statements were misleading could not have been determined from such an examination. Thus, the case hinges in part on whether or not generally accepted auditing standards were followed. Would you expect to be able to find a publication on auditing standards that could be used by *B* to prove that the examination which he made was in accordance with generally accepted auditing standards? Explain.

14. The suggestion has been made that the standard two-paragraph report on the auditor's examination be shortened to read as follows: "In our opinion

the accompanying balance sheet and statements of income and surplus present fairly the financial position of X company at December 31, 19—, and the results of operations for the year then ended." Would you approve of such a change? Explain.

15. If the auditor does not approve of a certain accounting treatment employed by the client, why does he not simply change the statements to reflect an acceptable treatment, rather than qualify his opinion by stating that generally accepted accounting principles have not been followed?

16. The auditor's findings are limited to a statement of his opinion on the over-all financial statements. Would any individual items in the financial statements justify a finding stronger than an opinion? Explain.

17. Most oil companies in the past capitalized all drilling costs on productive wells, but many companies are now capitalizing only the tangible drilling costs and are charging intangible costs, such as labor and depreciation on equipment, directly to expense. Of what interest would this information be to an auditor with several oil companies as clients?

18. Appended to the current financial statements of the Glimmer Manufacturing Co. is a typical short-form audit report, with no indication of any qualifications. Based on this report, could you properly conclude that the company is applying generally accepted accounting principles on the same basis that it did five years ago? Explain.

19. Why should the person using a company's financial statements be concerned about whether accounting principles have been consistently applied?

20. Would the owner of a business be likely to want an independent audit examination if he also managed the business? Explain.

2 · Independence: Keystone of a Profession

The auditor's statement that his examination has been made in accordance with generally accepted auditing standards carries with it the assurance that the auditor has maintained a mental attitude of independence in all matters relating to the assignment. This assertion is borne out by the discussion of auditing standards in the preceding chapter. That it is imperative for the auditor to maintain such independence is evident in the fact that the report of the independent auditor can continue to have value to businesses, financial institutions, and investors only as long as the auditor's reputation for independence remains firmly established. Unless the auditor is independent of the management of a corporation, the auditor's opinion is no more acceptable than the representations by management in the statements which it has prepared. Although occasional lapses in independence have occurred, the over-all record of the public accounting profession in maintaining its independence in auditing matters is suggested by the fact that audited statements are being used and demanded on an ever widening basis.

Not all services provided by public accountants require them to act independently. Services which do not require independence include designing and installing accounting systems, assistance in matters of budgeting and budgetary control, preparation of tax returns, tax consultation and tax planning, consultation on business problems, and preparation of records and statements for small businesses. In providing such services, the accountant is *expected* to place the interests of his client foremost.

The Difficulties of Remaining Independent

The extensive consideration given here to the subject of independence in audit engagements is necessitated by the fact that independ-

ence is so difficult to maintain. The auditor must remain independent of the business whose statements he is examining, and yet that business will normally have engaged the auditor and pay his fee! In such a situation the auditor must of necessity watch every step he takes as carefully as if he were on a tightrope.

Should the auditor become carried away by his zeal for independence, he may find his client cooperating to the extent of making him *completely* independent, and looking for a new auditor. On the other hand, there is always a natural desire to want to please a client, but moving too far in this direction may easily result in giving approval to statements which are actually misleading. Such a misstep is almost certain to be followed by a loss of reputation and eventually by a loss of clients. Thus it may readily be seen that the auditor finds his independence much more difficult to maintain than does the internal revenue agent or the bank examiner, since neither of these need ever be fearful of losing a client.

That maintaining the proper degree of independence is worth the effort is illustrated by the story of the newcomer to the profession who obtained his first big engagement as a result of losing out on another engagement when he refused to sacrifice his independence. The lost engagement resulted when a leading member of a financial institution in the city, who had an interest in the business the young auditor was examining, insisted that the statements be shown in a certain way. When the auditor refused to approve the statements in the desired form and could not induce the financier to change his mind, there was little choice but to terminate the engagement.

The auditor was certain this disagreement had succeeded in creating a powerful enemy, and he was understandably surprised when the financier contacted him not long afterward and asked him to examine another enterprise in which he had an interest. It developed that this time the circumstances were different, and to protect best his interests the financier was seeking an accountant who he was certain could be relied upon to maintain his independence.

The above incident is related by John L. Carey, Executive Director of the American Institute of Accountants, in an article appearing in *The Accounting Review*.* In the same article, Mr. Carey goes on to point out, however, that in the interest of preserving and expanding his practice the auditor will naturally wish to do anything within the limits of reason and propriety to please his client and that therefore a delicate balance must be maintained. He says:

> No young man should enter public accounting practice without having a clear idea of just how far he is willing to go in satisfying

* Vol. XXII, No. 2, April, 1947, p. 121.

each client, to just what extent he may subordinate his personal preference, just how much he can compromise, and exactly at what point he is determined to refuse to go further with a polite statement of the reasons. This kind of attitude can be developed only from a thorough understanding of the ethical concepts of public accounting, reinforced by why it is in the ultimate self-interest of the individual practitioner to observe them.

In a sense, it appears that the independent auditor's difficulties arise out of an attempt to serve two masters. The auditor must please his client, and at the same time he must be certain that his report can be relied upon with complete confidence by third parties who are interested in his client's statements. Needless to say, concern for these third parties must always be foremost. Should this group lose confidence in the auditor's reports, the auditor is certain to begin losing clients, since the client engages the independent auditor primarily to satisfy these third parties.

Independence and Rules of Professional Conduct

Inasmuch as a loss of faith in one member of the profession reflects also on the profession as a whole, the profession has taken steps to induce practitioners to remain independent and to strengthen public confidence in the auditor's independence. The principal approach to the problem has been through the promulgation of rules of professional conduct, or a code of ethics, to be followed by the members of the profession. Because the American Institute of Accountants is the national organization of the leading members of the public accounting profession, the Certified Public Accountants, it is only natural that this group has taken the lead in the matter of rules of professional conduct. The rules of the A.I.A. are, of course, enforceable only against those C.P.A.'s who wish to hold membership in the Institute, but they are the guide for the entire public accounting profession. The various state societies of Certified Public Accountants have generally patterned their rules of conduct after those of the Institute, and in those states where the state board of accountancy is empowered to formulate and enforce rules of professional conduct, the Institute rules have also been used as a guide.

These rules cannot, obviously, fully guarantee independence, since primarily independence is a state of mind. The rules, do, however, compel the auditor to avoid situations in which he might be tempted to compromise his independence; in addition, they reassure the public that the auditor will avoid exposing himself to such temptation.

Acts Discreditable to the Profession

Perhaps one of the broadest rules relating to independence is Rule 5 of the A.I.A. Rules of Professional Conduct. Committing any of the acts covered by the provisions of this rule would be likely to justify the presumption that the auditor had failed to maintain his independence. The rule states:

> In expressing an opinion on representations in financial statements which he has examined, a member may be held guilty of an act discreditable to the profession if: (a) he fails to disclose a material fact known to him which is not disclosed in the financial statements but disclosure of which is necessary to make the financial statements not misleading; or (b) he fails to report any material misstatement known to him to appear in the financial statement; or (c) he is grossly negligent in the conduct of his examination or in making his report thereon; or (d) he fails to acquire sufficient information to warrant expression of an opinion, or his exceptions are sufficiently material to negative the expression of an opinion; or (e) he fails to direct attention to any material departure from generally accepted accounting principles or to disclose any material omission of generally accepted auditing procedure applicable in the circumstances.

Financial Interest

Rule 13 deals more directly with the problem of independence by providing for the avoidance of situations in which the auditor would have a direct personal interest in the results presented by the financial statements which he is examining. This rule states:

> A member shall not express his opinion on financial statements of any enterprise financed in whole or in part by public distribution of securities, if he owns or is committed to acquire a financial interest in the enterprise which is substantial either in relation to its capital or to his own personal fortune, or if a member of his immediate family owns or is committed to acquire a substantial interest in the enterprise. A member shall not express his opinion on financial statements which are used as a basis of credit if he owns or is committed to acquire a financial interest in the enterprise which is substantial either in relation to its capital or his own personal fortune, or if a member of his immediate family owns or is committed to acquire a substantial interest in the enterprise, unless in his report he discloses such interest.

The requirements are much less rigid when the statements are for credit purposes, and the investing public as a whole will not be involved. Since relationships between parties are normally much closer

than when securities are publicly distributed, the credit grantor may decide for himself whether the auditor is likely to have been objective in his examination and report, in spite of the financial interest.

Contingent Fees

Rule 9 also relates to independence, ruling out a slightly different situation in which the auditor might realize personal gain as a result of the manner in which audited statements were presented. This rule provides:

> Professional service shall not be rendered or offered for a fee which shall be contingent upon the findings or results of such service. This rule does not apply to cases involving Federal, state, or other taxes, in which the findings are those of the tax authorities and not those of the accountant. Fees to be fixed by courts or other public authorities, which are therefore of an indeterminate amount at the time when an engagement is undertaken, are not regarded as contingent fees within the meaning of the rule.

As this rule states, the accountant may agree to a contingent fee arrangement in certain tax matters. If the ultimate decision on these matters lies with a tax authority, the situation is quite different from the case where the third party must rely entirely on the findings of the accountant.

Incompatible Occupations

Still another rule* relating to independence is Rule 4, which states, "A member shall not engage in any business or occupation conjointly with that of a public accountant, which is incompatible or inconsistent therewith." The relationship of this rule to independence may be observed in a listing of businesses which have been held to be incompatible with public accounting by the Committee on Professional Ethics of the A.I.A. These include a brokerage firm engaged in the purchase and sale of securities, a dealer in investments, and a securities salesman.

* The complete set of rules is given in the appendix. Other rules of professional conduct deal with maintaining over-all standards and attitudes commensurate with professional standing, and fostering the confidence of clients in the auditor's work. Included in the first group are rules related to advertising, solicitation, and competitive bidding, and the second group touches on such matters as the confidential manner in which the auditor must treat knowledge of the client's affairs, fee splitting, and the receipt or payment of commissions to persons who are not public accountants.

Securities and Exchange Commission

Another group interested in the independence of public accountants is the Securities and Exchange Commission, receiving its authority from the Securities Act of 1933 and the Securities Exchange Act of 1934. The mistaken idea is quite widely held that these acts were intended to protect investors from losses resulting from doubtful investments, but actually there is no attempt to protect the investor from his own poor judgment, nor could there ever be in a free economic society. The basic purpose of these acts is to help assure investors that they have reliable information on which to base their investment decisions. Primarily, the acts affect any business planning to sell securities in interstate commerce and any business whose securities are traded on one of the national securities exchanges. Such businesses must file a registration statement with the Commission before new securities may be sold and must file annual reports with the Commission. The financial statements which are included in these reports must be accompanied by the report of an independent public accountant. The Commission reviews all statements which are filed as to over-all adequacy and conformance with its rules and regulations and satisfies itself that the certifying accountant is in fact independent, but wisely the responsibility for the actual examination of the statements has been allowed to remain with the public accounting profession.

S.E.C. Rules on Independence

The rules of the S.E.C. relating to independence are quite specific and much more extensive than those of the American Institute of Accountants. The basic stand of the Commission is clear in Rule 2.01 of its Regulation S-X, which states:

> (b) The Commission will not recognize any certified public accountant or public accountant as independent who is not in fact independent. For example, an accountant will not be considered independent with respect to any person, or any affiliate thereof, in whom he has any financial interest, direct or indirect, or with whom he is, or was during the period of report, connected as a promoter, underwriter, voting trustee, director, officer or employee.

Findings of the Commission in specific instances are summarized in Accounting Series Release No. 47, dated January 25, 1944. The following situations in which the Commission held the accountant to

be *not* independent suggest the fineness of the line which has been drawn:

1. More than 1 per cent of the accountant's personal fortune was invested in the capital stock of his client.
2. The accountant was indemnified by his client against all losses, claims, and damages arising out of his certification of the client's statements.
3. Shares of the client's stock were pledged to guarantee payment of the accountant's fee, and the accountant was granted an option to purchase the pledged shares at the market price at the date of the option.
4. A partner of an accounting firm was serving on the board of directors of a registrant, but he did not participate in any way in the accounting firm's audit of the registrant.
5. The son of a partner of an accounting firm that certified the financial statements of a registrant was serving as assistant treasurer and chief accountant of the registrant.
6. A senior staff member of an accounting firm had supervised the audit of the registrant and was appointed as controller to serve while the regular controller was in the armed forces. The employee remained on the staff of the accounting firm but relinquished all responsibility for the audit of the registrant and did no work in connection with the audit.
7. An accounting firm had followed the practice of drawing up monthly journals for a company and posting them to the appropriate ledgers. Members of the firm who had not done the recording made the audit examination at the end of the year.

Legal Liability

From the preceding comments it should be apparent that there are many pressures inducing a public accountant to remain independent of his client in auditing matters, in spite of the fee relationship which usually exists. The accounting profession, the S.E.C., and the accountant's professional reputation are all involved. There is still another pressure encouraging the accountant to remain independent—a pressure which, as with the matter of reputation, relates directly to the self-interest of the practitioner. This additional pressure is in the form of the legal liability to which the accountant is subject if he compromises his independence and third parties incur losses as a result. Legal liability may also result from factors other than loss of independence, and the entire matter of legal liability is

briefly presented here for the purpose of providing adequate orientation.

Under common law, as established through court findings, the auditor's liability to the second party of the contract, that is, the client, is different from the auditor's liability to third parties. Generally speaking, the liability is broadest with respect to the client, since such liability encompasses ordinary negligence, whereas the liability to third parties encompasses only gross negligence and fraud.

Responsibility for Detecting Fraud in the Accounts

Legal liability normally arises when losses are incurred as a result of relying on financial statements which are covered by an auditor's opinion but which subsequently prove to be in error or misleading. At this point it should be recalled that the auditor does not guarantee the accuracy of financial statements: He expresses an opinion as to their fairness.

Unfortunately, many users of audited financial statements are under the impression that an audit examination designed to permit expression of an opinion on financial statements can give complete assurance that no fraud has occurred. But the fact remains that it is quite possible that an examination made in accordance with generally accepted auditing standards may fail to detect fraud in the accounts, should the fraud not be sufficiently material to misstate grossly the company's financial and operating results.

For instance, such failure to detect fraud may result when, in conformance with the laws of probability, none of a relatively few spurious transactions or records appears among the items selected for test by accepted selection methods, and thus these items escape any possibility of detection. Obviously the only sure protection against such a possibility is 100 per cent examination covering all transactions, and as has already been stated, such an approach is not sound economically.

Another possible cause for failure to detect fraud in the accounts would be that the fraud had been so skillfully perpetrated and the manipulations to conceal the action so carefully carried out that generally accepted auditing procedures applied with reasonable skill would not disclose them.

Since these possibilities exist that fraud may go undetected, the auditor usually finds it to his advantage to explain these limitations to his client before beginning the examination, as a means of preventing misunderstanding from arising at a later date. Unfortunately, such precautions are not possible with respect to third parties

who may rely on the audited statements, and the only recourse is through educational programs undertaken by the A.I.A. and state societies of C.P.A.'s, and the efforts of the individual practitioner to clarify the situation through personal contacts.

Professional Skill and Errors in Judgment

It should be evident, at this point, that there should be no liability on the part of the auditor if fraud goes undetected as a result of the limitations of the typical audit examination. Neither should there be liability on the part of the auditor when he has faithfully and diligently performed his duties but in making the many decisions associated with the performance of his duties has erred in his judgment on some matter. This point is aptly stated in *Cooley on Torts,* a leading authority in such matters:

> In all those employments where peculiar skill is requisite, if one offers his services, he is understood as holding himself out to the public as possessing the degree of skill commonly possessed by others in the same employment, and if his pretensions are unfounded, he commits a species of fraud upon every man who employs him in reliance on his public profession. But no man, whether skilled or unskilled, undertakes that the task he assumes shall be performed successfully, and without fault or error; he undertakes for good faith and integrity, but not for infallibility, and he is liable to his employer for negligence, bad faith or dishonesty, but not for losses consequent upon mere errors of judgment.*

Liability to the Client

The auditor's liability with respect to his client may be summarized by stating that the client may recover from the auditor any losses incurred as a result of the auditor's negligence or actual intent to mislead the client. The auditor is not liable for losses stemming from honest errors in judgment or shortcomings of the type of examination which has been agreed upon.

Claims against the auditor for recovery of losses incurred by the client may arise from either of two situations. If negligence on the part of the auditor in failing to detect fraud in the accounts makes it possible for an employee to continue to defraud his employer, the employer may be able to recover from the auditor those losses incurred after the auditor's examination. The auditor may also incur a

* Thomas M. Cooley, *Cooley on Torts,* 4th ed. (Revised by D. Avery Haggard) (Chicago: Callaghan, 1932), III, 335.

liability to his client for negligence in detecting fraud when the client is the principal user of the auditor's report, rather than third parties. This would be true if the client were the prospective purchaser of a business and agreed upon the purchase price of the business based upon the audited financial statements.

Liability to Third Parties

Third parties who rely on the auditor's opinion have more limited right of action in recovering losses than does the client, since no contractual relationship exists between these third parties and the auditor. There is no contract binding the auditor to the careful performance of his duties. Consequently, third parties are not entitled to recovery of losses from the auditor if the cause of the loss was negligence on the part of the auditor in making his examination.

Fraud and gross negligence are the only bases for action by third parties against an auditor. Obviously the auditor should be liable if in expressing his opinion fraud is present in the form of an intent to deceive others, and the courts have carried such liability one step further to include gross negligence as well. The basis of reasoning here is that if the auditor expresses an opinion when actually there is no basis for an opinion, or if the basis is so flimsy as to lead to the conclusion that the auditor had no real belief in his opinion, then the auditor's negligence has been gross enough to support an inference of fraud, even though intent to deceive has not actually been proven.

The auditor's liability to stockholders of a client corporation lies somewhere between his liability to his client and to third parties. Generally speaking, stockholders are classed with those third parties who rely on the auditor's opinion in determining the reliability of a set of financial statements, but the courts have sometimes placed stockholders in a slightly more favorable position. Whereas it is true that the auditor's contract to make an examination will usually be with the corporation rather than with the stockholders, there has been some tendency to identify the stockholders quite closely with the client, since they are the actual owners.

Liability Under the Securities Act of 1933

What has been said to this point concerning the liability of the auditor to third parties has related to common law. This liability has been substantially increased by the Federal Securities Act of 1933

with respect to accountants who have expressed an opinion on financial statements included in a Registration Statement filed with the Securities and Exchange Commission in connection with a proposed security offering. Under the Act, an accountant who gives an opinion on the financial statements of a registered company may be held liable to third parties for losses if the statements are subsequently shown to have included an untrue statement of a significant fact or failed to include a material fact necessary to make the statements not misleading. The injured party may sue the accountant for recovery of damages either at law or in equity without the burden of proving that he had relied upon the statements in question, that his loss resulted from the alleged misstatement, or that the accountant was negligent in his examination. The burden is thus placed upon the accountant to prove, by way of defense, that the plaintiff's loss resulted from causes other than the false information or misleading omission of information, or that the accountant had reasonable grounds for believing that the statements were fairly presented.

The general effect of the provisions of the Securities Act of 1933 has been to extend to third parties purchasing or owning the securities of registered companies the same rights of action against a certifying accountant as would be held had the injured persons been party to the contract with the auditor. In other words, the auditor is liable to such persons for losses resulting not only from fraud or gross negligence, but losses resulting from ordinary negligence as well. In addition, the burden of proof as to the cause of the loss or the absence of negligence is transferred from the third party to the auditor.

Liability Under the Securities Exchange Act of 1934

The Securities Exchange Act of 1934 relates to companies whose securities are traded on national securities exchanges. Such companies must file with the S.E.C. annual reports, which are accompanied by the opinion of an independent public accountant. The liability placed upon the accountant in expressing an opinion on such statements is considerably less than in connection with Registration Statements, and in general is about the same as under common law.

Although it might appear that the preceding discussion of the legal liability of the auditor is unrelated to the matter of independence, it should be remembered that such liability is likely to result if the auditor sacrifies his independence and accedes to the desires of his client, when the result is to misrepresent or give misleading information concerning the client's financial position or results of operations.

Selection of the Auditor

The question of who should select and engage the independent auditor is also related to the matter of the auditor's independence. The responsibility will normally rest with the client, but such a generalization is subject to exception. For instance, the small businessman seeking a bank loan may be requested to submit audited statements. If the businessman is unfamiliar with the public accounting firms serving the community, the banker is likely to suggest a firm which he prefers. Such a recommendation carries with it an additional incentive for the recommended firm to maintain its independence, since only by so doing can additional referrals be anticipated.

The prospective borrower, on the other hand, can rest assured that the accountant or firm to which he is referred is capable and of good reputation. The banker has no other basis for his recommendation, since Rule 3 of the Rules of Professional Conduct prohibits the auditor from paying a commission to the banker for referring a client to him. Since there is no conflicting inducement, the banker's self-interest in obtaining a reliable report can be expected to rule. Of course, any time the banker wants maximum assurance of independence, the banker will actually engage the auditor and pay his fee. The relative infrequency of such an arrangement speaks highly of the reputation of the profession as a whole for capable work independently performed.

The bearing of the method of selecting the auditor on the auditor's independence is even greater in the case of large corporations which regularly have an independent examination. At one time it was customary to have the president, treasurer, or some management group engage the auditor, but this arrangement placed the auditor somewhat in debt to the very persons on whom he would be checking in the course of his examination, and he would therefore be subject to pressure from them.

To strengthen the auditor's position and to assure stockholders and other third parties that the auditor is not likely to be subservient to management, many corporations have delegated the responsibility for engaging the auditor to the board of directors, since this group is further removed from the daily operations and management of the business. If a committee of the board of directors makes the selection, it will usually be specified that such committee not include any officers of the corporation who are serving on the board.

To give even greater protection to the stockholders, some corporations place final responsibility for the auditor's selection with the stockholders by having that group vote its approval or disapproval of

the auditor nominated by the board of directors. The fact that relatively few corporations follow this last procedure is strong commendation, indeed, of the manner in which the public accounting profession has served the interests of third parties through successfully maintaining its independence in making examinations of financial statements.

Review Questions

1. Do all services provided by public accountants require that the practitioner act independently? Explain.

2. Why does a public accountant find it more difficult to remain independent than does an internal revenue agent or a bank examiner?

3. Why must the auditor strive to satisfy third parties in connection with an examination of financial statements, even though there is no direct relationship that would account for such action?

4. Why is the public accounting profession as a whole desirous of inducing each member to maintain complete independence when examining financial statements for a client?

5. Since independence is primarily a state of mind, what purpose is served in promulgating rules of professional conduct pertaining to independence?

6. Explain the fact that the Rules of Professional Conduct (Rule 13) prohibit the public accountant from expressing an opinion on the financial statements of any enterprise financed by the public distribution of securities in which the accountant or his immediate family hold a substantial financial interest, but in the case of companies not so financed permit the accountant to express an opinion on financial statements to be used for credit purposes, provided the report discloses the accountant's financial interest.

7. The Rules of Professional Conduct of the American Institute of Accountants (Rule 9) prohibit rendering professional service when the fee is contingent upon the findings or results of the service. Show how this rule relates to the independence of the public accountant.

8. Why is the Securities and Exchange Commission concerned with the independence of public accountants?

9. Explain how the auditor's failure to maintain his independence may result in legal liability.

10. Under what circumstances may an auditor incur legal liability for failure to detect fraud?

11. How is the auditor's liability likely to differ in the case of ordinary negligence as against gross negligence or fraud?

12. Has the Securities Act of 1933 served in general to increase or decrease the accountant's liability? Explain.

13. How is the auditor's independence affected by the organizational status of the persons who select the auditor in the case of a large corporation?

Questions on Application of Auditing Standards

14. Compare the short-run and the long-run advantages or disadvantages of maintaining complete independence when making an examination of financial statements for a client.

15. How does the usual arrangement for engaging and compensating the auditor testify to the success of public accountants in maintaining an independent point of view when examining clients' financial statements?

16. Why must the independent public accountant maintain an appearance of independence, in addition to thinking and acting independently of his client?

17. How can an auditor claim to be independent when he subscribes fully to the right of his client to determine the form and content of the statements which he is to certify?

18. Would you expect the legal profession to have the same problem with respect to independence as does the public accounting profession? Explain.

19. Justify the fact that Rule 9 of the Rules of Professional Conduct permits the accountant to accept an engagement on a contingent fee basis if the engagement pertains to representing the client in tax matters before a taxing authority.

20. What is the apparent reason that the Securities and Exchange Commission would not recognize an accounting firm as independent for purposes of expressing an opinion on a client's financial statements, when members of the staff of the accounting firm had prepared the books of entry and the ledgers?

21. Rule 11 of the Rules of Professional Conduct of the American Institute of Accountants prohibits a member from being associated with a corporation engaged in the practice of public accounting. How is this rule related to the legal liability of the accountant?

3 · Internal Control

The growth of record keeping as a necessary adjunct to successful business operation provided the original impetus for the development of auditing services. The businessman found audits desirable in order to assure himself that the bookkeeper's work was accurate and providing reliable operating data. In addition, he needed assurance that cash had been properly accounted for, because the handling of cash was quite commonly delegated to some employee—often to the bookkeeper, with the result that an audit was doubly important. Thus audits were geared primarily to the internal affairs of the business.

As businesses grew, however, the detailed auditing of a growing number of transactions produced a corresponding increase in the size of the auditor's bill for his services. Businessmen found themselves looking for a less expensive substitute for the increasingly costly annual outside audit; preferably a substitute which might at the same time better meet their needs. The solution which evolved was the development of internal means of securing the desired control over accounting, cash, and the operations of the business as a whole. These internal means of control are known today as "internal check" and "internal auditing." "Internal control" is a broader term, generally used to encompass both internal check and internal auditing. Each of the two phases of internal control is discussed separately in the following pages of this chapter.

INTERNAL CHECK

At first internal check involved little more than the simple steps taken by management to safeguard cash and to check the clerical accuracy of the bookkeeping. Cash was protected primarily by divesting the bookkeeper of any responsibility for receiving, disbursing,

or holding cash, thus providing independent accounting control over the person who was delegated to handle the cash function. Clerical accuracy was assured by cross-checking figures developed by different employees relating to the same item, such as the accounts receivable control balance and the total of the detailed accounts receivable ledger.

These elementary forms of internal check were adequate for some time, but as the typical business organization continued to grow in size the need for broader forms of internal check became apparent. Management was no longer able to maintain the personal contact with operations which in the past had afforded an ample basis for directing the affairs of the business and as a substitute had to rely more and more heavily on accounting information and the accounting system for aid in carrying out its responsibilities. To meet these increased demands, internal check within the accounting system was expanded to accomplish three things:

1. Give assurance that the accounting system would produce information which was reliable, current, and adequate to form a sound basis for directing the business and making effective decisions.
2. Provide protection of the resources of the business against fraud, carelessness, and inefficiency.
3. Facilitate control of the business by furthering compliance with management decisions and policies.

How Information, Protection, and Control Aid Management

Most information needed by management in order to keep informed about finances and the progress of operations comes from the accounting records. The information must be adequate to supply answers to such typical management questions as "What is our present inventory position by classes of material?" "How much material do we have on order?" "Is our supply of materials used in product Z adequate to permit a 50 per cent increase in our production schedule?" and "Do we have enough of part number 1234 on hand to meet customer demand for repair parts or should more units be produced before we re-tool for successor part 1234a?" The reliability of the information which is supplied can be assured through cross-checking. The general ledger account, the detailed perpetual inventory records, and the actual physical inventory can all be separately derived and are expected to be in substantial agreement. If such agreement is present, the accuracy of each of the three records is substantially proved.

Protection against fraud, waste, and inefficiency is gained by keeping all assets under complete accounting control and reporting any discrepancies. Thus carelessness in handling and issuing material from the stock room will show up when the book record is verified by a physical inventory. Spoilage on the factory floor will show up in scrap reports and supplementary requisitions for material over and above the amount set up by production control. Attempts to defraud through withholding cash receipts or making unauthorized disbursements are readily revealed by regular cash counts and bank reconciliations, unless the accounting records have been falsified.

Control is obtained through accounting and clerical procedures in various ways. The quantity of each item of material in inventory can be controlled by establishing re-order points and normal re-order quantities. Standards are extremely valuable as a means of gaining control since variances from standard can be expected to bring immediate investigation. By the same token a complete budget encourages performance according to plan through reporting of variances and makes possible valuable advance planning and coordination.

From the preceding discussion it should be apparent that the development of internal check resulted in substantial benefits to management over and above those derived from the relatively mechanical type of audit which had once served the needs of management so well. Deviations are reported almost immediately, rather than at the end of the year when the auditor is called, thus substantially reducing effects which might otherwise be cumulative until disclosed. Furthermore, the increasing number of transactions made the old-style audit almost prohibitive in cost, while internal check costs very little, since it usually capitalizes on the division of labor and specialization which naturally accompanied the growth in the size of business enterprise.

Planning for Good Internal Check

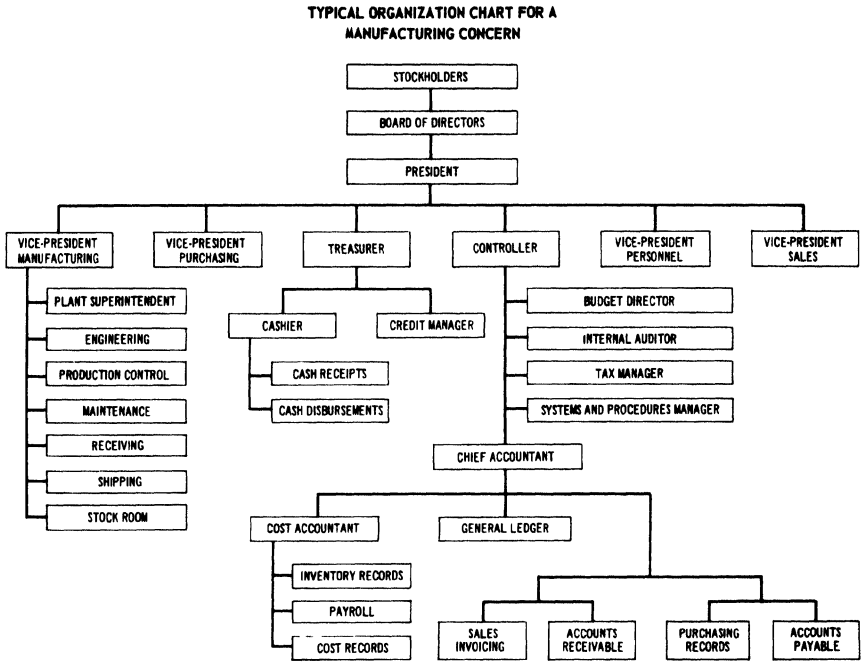
Proper division of responsibilities is one of the principal means by which good internal check is achieved. The division of responsibilities should be such that no one person or department is responsible for handling all phases of a transaction from beginning to end. In all instances the primary consideration in carrying out this cardinal rule of internal check should be to segregate the basic operating responsibilities associated with a transaction from the responsibility for recording the transaction. Thus, when materials are purchased and placed in the custody of the manufacturing department, the record establishing the accountability for those materials should be

maintained outside the manufacturing department. Under such an arrangement, any materials lost, stolen, damaged, or wasted through the negligence of the manufacturing department will eventually be shown to be unaccounted for, revealing the need for corrective action. Should the manufacturing department be permitted to keep the record of the materials, in addition to being responsible for their custody, material losses could be readily concealed by altering the records.

The segregation of accounting responsibility in connection with such operating activities as manufacturing, selling, and purchasing is likely to result quite naturally, since the operating personnel will ordinarily have neither the training nor the inclination to assume the responsibility for maintaining the necessary records relating to the transactions which they initiate. Receiving cash, disbursing cash, granting credit, and collecting receivables are similarly foreign to the basic operating responsibilities of a business. As a result, operating personnel are likely to be equally as willing to delegate these responsibilities to others as to delegate the responsibility for record-keeping. A frequent result of these circumstances is that both the accounting and the financial responsibilities are delegated to the same person. In a small business the bookkeeper is often given the responsibility for handling cash and accounts receivable. In larger businesses, the treasurer is likely to be made responsible for accounting as well as cash and receivables.

The fact that both accounting and finance are concerned primarily with dollars and cents is probably the reason that "logical" thinking tends to place both responsibilities under one person. Enlightened businessmen, however, aware of the importance of good internal check and anxious to secure its benefits, have recognized that handling the financial matters of a business is just as much an operating responsibility as handling manufacturing or sales. Their recognition of this fact has shown the need for the segregation of accounting and finance. The resulting independent accountability established over financial operations is even more important than in the case of manufacturing materials mentioned above. The universal usefulness of cash suggests a maximum need for separate accountability to assure that it is properly handled and used.

To obtain this vital accountability over operations, management has usually delegated the responsibility for accounting to the controller; a top management official functioning on an equal plane with other officers directly under the president. The organization chart which follows illustrates such an arrangement.



Segregation of Duties Between Controller and Treasurer

The reader should note from the above chart the many activities in addition to accounting for which the controller is responsible. In a small business the controller may handle these other activities himself, but in a large concern most of them will be assigned to individuals or department heads who assist the controller in a staff capacity. The underlying purpose of the indicated alignment of responsibilities is to enable the controller to maintain good internal check in order to meet the demands of management upon the accounting system for information, protection, and control. The full extent of these responsibilities is indicated by the following statement which the Controllers' Institute of America recommends be incorporated into corporate by-laws:

> The duties of the controller shall be to maintain adequate records of all assets, liabilities, and transactions of this corporation; to see that adequate audits thereof are currently and regularly made; and, in conjunction with other officers and department heads, to initiate

and enforce measures and procedures whereby the business of this corporation shall be conducted with maximum safety, efficiency, and economy. He shall attend all meetings of the Board of Directors and of the Executive Committee and he shall report to the President and/or the Board of Directors as said Board of Directors may prescribe. His duties and powers shall extend to all subsidiary corporations and, so far as the President may deem practicable, to all affiliated corporations.

The treasurer's responsibilities relate primarily to the finances of the business. He arranges to hold or obtain the funds necessary to finance the cost of expanded operations or to meet obligations as they come due, and is charged with securing any needed funds under the best terms commensurate with the needs of the business. In addition, the treasurer is responsible for the custody and handling of the liquid assets of the business—cash, receivables, and investments. Records establishing accountability over these assets are of course maintained under the controller in order to obtain the desired segregation of accounting and operations. For example, under the treasurer is the credit manager, charged with complete responsibility for credit and collections, but the original charge to accounts receivable and the accounting for receivables are both handled by the accounting department. Cash collections on these receivables are placed in the custody of the cashier, who is also responsible to the treasurer. Accountability over the cashier is established through the accounts receivable records and the general ledger record of cash. The credit to receivables which relieves the credit manager of responsibility when cash is received on an account is offset by the debit to cash which charges the cashier with the collected funds.

Such separation of operating and accounting responsibility is also apparent with respect to the purchase of materials. The purchasing department is responsible for coordinating information concerning materials on hand with sales forecasts and production schedules and placing orders at the best possible prices for the materials which will be needed. The accounting department handles the accounting for the resulting liability and, after comparing the vendor's invoice with the prices and terms specified by the purchase order and the quantity of material received as shown by the receiving department records, approves the invoice for payment by the cashier or treasurer. The actual materials will have gone to the stockroom, but are subject to the accountability established through the general ledger record of inventory and the detailed inventory records maintained under the cost accountant. The stockroom will be relieved of responsibility only after the accounting department receives notice that the mate-

rials have been requisitioned by the production control department and received on the factory floor.

It is interesting to note similar separation of responsibilities in everyday situations. In a department store, the accountability for cash collected is established by a cash register which is later "read" by the accounting department. The sales clerk and eventually the cashier are held accountable for the cash called for by the register reading. The ticket seller at a motion picture theater is charged for serially numbered tickets and must return either tickets or cash at the end of the day. Control over admission to the theater is through the ticket taker, who is usually charged with responsibility for mutilating the admission ticket so it cannot be resold or re-used. In many large restaurants, a food checker stationed at the door leading from the kitchen to the dining room records on a guest check the menu price of food leaving the kitchen. A registering machine records these amounts, which then become the basis for determining the amount of cash to be turned in at the end of the day by the cashier.

Other Elements of Good Internal Check

Although the division of responsibility for handling each transaction is important in achieving good internal check, there are other aspects of the problem which should not be overlooked. To assure that responsibility is firmly fixed and clearly understood by each person involved, the duties, instructions, and procedures for each job should be stated in written form. Such material is usually incorporated in a manual of operating procedures which must, of course, be kept up to date and used if it is to be effective.

When an employee is responsible for the handling or custody of company assets, additional protection in the form of bonding is highly recommended. Bonding offers the following three-way protection: (1) Each employee to be bonded is carefully investigated by the bonding company, giving assurance that the employee's past record and over-all honesty are above reproach; (2) bonding places an additional pressure on the employee to remain honest; and (3) the business is protected if an employee submits to temptation and embezzles company funds.

A well-informed management is also highly important to good internal check. In a small business much of the information needed by the management can be obtained by on-the-spot observation. The large business, however, makes such personal contact relatively impractical, and a comprehensive plan of internal reporting must take its place. To be effective in keeping management fully informed,

internal reports must contain the right amount of detail, must be as current as possible, and must be sufficiently accurate to meet the needs of the user. Methods which can be used to secure the desired amount of accuracy include automatic machine proofs,* general ledger controls over subsidiary records, proof of figures against predetermined totals, and independent verification. Accuracy is a relative matter, however, and although cash, receivables, and payables are usually accounted for with considerable precision, internal reports seldom suffer if prepared without consideration of penny accuracy. In fact, some businesses have gone to "penny elimination" in all internal accounting, in view of the clerical saving when only round dollar amounts are handled.

Budgets and standards provide a basis for evaluating and interpreting operating results, and thus contribute greatly to internal check. They also accomplish another useful purpose in that they establish goals for the operating departments.

Strengthening and Preserving Internal Check

Attaining and maintaining good internal check is not an automatic process. Constant watch must be maintained to be certain that "shortcuts" are not developed and "unnecessary" steps omitted. For instance, the principal reason for prenumbering forms is to make it possible to determine that every copy of the form is accounted for, but the number of instances in which the accounting for serial numbers has been carelessly discarded by employers or employees is appalling.

Various means are available by which management can assure itself that all phases of its plan of internal check are still operative. One obvious way is for management itself to make regular tests and investigations, but the multitude of other matters usually pressing this group of officers and employees is likely to cause the verification of internal check to be bypassed or neglected entirely.

In the retail field, agencies performing a "shopping" service are quite commonly engaged to report on adherence by sales clerks to the established procedures of the organization. The shoppers observe whether each sale is properly rung up on the cash register at the time of sale, note whether the clerks are following the required procedure with respect to the handling of the customer's copy of the sales check, watch for proper methods of making change, and note each clerk's good and bad points in handling customers.

* Such proofs usually involve computing new totals or balances in two different ways. The machine compares the answers, and if they differ, the machine locks, thus prohibiting the operator from making further entries until the error has been corrected.

One of the best methods of verifying compliance with procedures intended to produce good internal check is through a comprehensive plan of internal audit. A good internal auditor should be an expert in matters of internal check, since (as will be noted in the portion of this chapter devoted to internal auditing) one of his principal duties is to maintain constant watch over the system of internal check.

The independent auditor can also be expected to make a valuable contribution with respect to maintaining a good system of internal check. The independent auditor does not approach the problem in the same detail as does the internal auditor, nor is his point of view the same, because he is primarily concerned with internal check as it relates to the scope of his examination. Nevertheless, he will be in close contact with the client's procedures and will want to capitalize on any opportunity to be of service to his client by recommending ways of strengthening internal check and pointing out any deviations from prescribed procedures.

Internal Check and the Independent Auditor

The reason for the concern of the independent auditor with the degree of internal check inherent in the client's procedures may best be explained by means of a simple illustration. Two manufacturing concerns of about equal size and producing similar products are to be examined for the purpose of expressing opinions on their financial statements. Both concerns have substantial inventories of raw materials, work in process, and finished goods. In each case the auditor must determine whether these inventories actually exist, and whether they are fairly stated in accordance with generally accepted accounting principles.

Company A determines its inventory on a periodic basis, and the cost records do not tie in with the general ledger. In Company B the cost records do tie in with the general ledger, and perpetual inventory records are maintained. The materials stockroom is held accountable for all materials by detailed inventory records maintained in the accounting department, and since these records are maintained with dollar figures as well as units of material, they must balance with the general ledger control accounts.

Both companies take a complete physical inventory on the balance sheet date. Company A merely places the physical inventory in the accounts, and all materials not accounted for as being on hand are treated as having been sold. Company B checks its physical inventory against the detailed inventory records and recounts any items which vary substantially from the book record. The detailed records are

then totaled and compared with the control accounts. The inventory variance disclosed by these comparisons is normally less than 1.5 per cent of the total inventory and less than 0.4 per cent of the material shown as cost of sales.

It should be quite obvious that an auditor would want to undertake substantially more verification work before accepting Company A's inventory figure than would be necessary in the case of Company B. The procedures applied would vary to a certain extent, and although both examinations would be made on a test basis, the test would have to be far more extensive for Company A.

Evaluation of Internal Check by the Independent Auditor

The preceding illustration should present ample basis for the assertion that the scope of the independent auditor's examination is directly affected by the client's system of internal check. Implied in this statement is the need for a careful study to determine just how much internal check is present. Such a study must cover two separate considerations: (a) evaluation of the degree of internal check present in the accounting system and related procedures as they were designed to be operated, and (b) determination of whether the prescribed procedures are actually being followed.

In order to evaluate internal check, the auditor must first obtain a comprehensive picture of the procedures and division of responsibilities as they are supposed to exist. Organization charts, procedures manuals, and direct inquiry will ordinarily be the source of such information. After the auditor has obtained this information and has become fully aware of the strong and weak points of the system, he will proceed to determine whether the "paper" system is actually in effect. Observation and tests comprise the main approach to this problem.

Questioning an employee, observing him at work, and testing the work he has done should provide the auditor with adequate evidence as to what is actually being done. If a given employee is supposed to verify extensions and footings on all vendors' invoices, a few direct questions about the number of invoices he checks a day and the steps he takes when a discrepancy is discovered can be most revealing. In addition, a number of completed invoices can be selected at random to determine whether the employee's initials are present attesting that he has made the necessary verification. As a final check, the auditor may scan the invoices or actually prove the footings and extensions to determine that the employee is doing the work and doing it accurately.

At a much higher level, the auditor may determine that under the system of internal check the treasurer is responsible for ascertaining that each disbursement is in order by reviewing all supporting data before signing the check for the disbursement. Examination of the paid checks will readily disclose whether they have been signed by the treasurer, but some resourcefulness may be necessary to determine how carefully the treasurer reviewed the supporting papers before signing. A "casual" inquiry may be helpful. Surprisingly often a remark to the effect that it must take a lot of time to process so many payments each day will elicit the reply that it takes only a few minutes. The obvious implication is that the treasurer does little more than sign the checks, and no review of disbursements is being made.

When and How to Review Internal Check

Since the independent auditor's main concern with internal check stems from its effect on the scope of his examination, it would be logical to assume that the auditor makes his review and tests of internal check before beginning to apply any audit verification procedures. While this sequence of steps is perhaps found most frequently, some practitioners prefer to combine both steps and perform them simultaneously. The reasoning here is that the review of internal check and the audit verification procedures will both ordinarily cover similar transactions and documents, thus making it possible to combine the two steps. If this is done, however, the auditor must be careful to weigh his findings on internal check at an appropriate point in order to determine how extensive the verification procedures should be.

The actual evaluation of the system of internal check is usually accomplished with the aid of a questionnaire. The primary purpose of the questionnaire is to remind the auditor of the many points to be watched for, and thus to prevent any oversights from occurring. Some auditors have found, however, that the questionnaire method sometimes produces rather mechanical answers, because the staff man making the review fails to give proper consideration to the significance of his findings. Those who have had this experience very often discard the questionnaire and substitute the requirement that the staff man write a complete description of the procedures actually in effect, to be followed by a critical evaluation of the effectiveness of the system and a listing of any weaknesses which were detected.

The Internal Check Questionnaire

The fact that a questionnaire is valuable as a check list to avoid overlooking any points may be noted from the detail evidenced by the

following section of a typical questionnaire. Each question should be answered *Yes, No,* or *N.A.* (not applicable), and comments should be given if appropriate. The person making the investigation should sign each page of the questionnaire to establish his responsibility for the work which has been performed. A complete questionnaire used in reviewing the system of a machine manufacturer is included in the appendix.

*Sample Internal Check Questionnaire**
Petty Cash Fund

1. Is imprest fund system in use?
2. Is the responsibility for each fund vested in one person only?
3. Is the custodian independent of the cashier or other employees handling remittances from customers and other cash receipts?
4. Is the amount of the fund restricted so as to require reimbursement at relatively short intervals?
5. (a) Has a maximum figure for individual payments from the fund been established?
   (b) If so, state maximum figure.
6. Are payees required to sign vouchers for all disbursements?
7. Are advances made to employees and I.O.U.'s properly approved?
8. (a) Is the cashing of personal checks prohibited?
   (b) If not, are such checks recashed at bank or included as vouchers supporting request for reimbursement? State procedure.
9. (a) Are vouchers and supporting documents checked at the time of reimbursement by a responsible employee?
   (b) Does that employee verify the unexpended balance of the fund?
10. Are the amounts of the vouchers spelled out in words as well as written in numerals?
11. Are vouchers marked so as to preclude their re-use?
12. (a) Is any part of the fund represented by cash in bank?
   (b) Are checks drawn on this account signed by the custodian only?
13. Are checks for reimbursement made out to the order of the custodian?
14. Is the fund checked by surprise counts made by an internal auditor or other employee independent of the custodian?
15. Describe the operation of the fund if the same is in part represented by bank account. (e.g., If an imprest fund, are all reimbursements deposited in the bank and a small working cash

* American Institute of Accountants, *Case Studies in Internal Control—The Textile Company* (April, 1950).

balance replenished therefrom, or does the custodian transfer amounts from cash to bank and vice versa in his discretion?)

	Name	*Date*	*Comment*
Originally prepared by:			
Reviewed in subsequent examination by:			

INTERNAL AUDIT

Internal check has been previously referred to as one element of the program of management for maintaining adequate internal control over the activities for which it is responsible. The other and equally important element of this program is internal audit—the audit of company affairs and activities from within.

Internal auditing appeared on the business scene much later than audits by public accountants. One of the factors in the early growth of internal auditing was the assumption by management of the responsibility for accuracy in the accounts and detection of fraud which had at one time been delegated extensively to the independent auditor. As was indicated earlier, increases in the cost of outside auditing services resulting from the increased volume of transactions to be reviewed, the need for more than annual checking, and the growth in the need for the newer type of audit designed to permit expression of an independent opinion to be relied upon by third parties, all tended to induce the transfer of auditing activity relating to accuracy and fraud from the public accountant to employees within the business unit. Internal check performed much of the job, but some actual auditing was also necessary.

Railroads were one of the first groups to employ internal auditors, often referred to as traveling auditors. The main function of the traveling auditor was to visit the railroad's ticket agents and determine that all tickets and cash had been properly accounted for. This rather elementary checking function was, however, merely the beginning of an internal activity which eventually became a vital tool in most large, progressive business concerns and evolved into much more than a mere checking function.

Meeting the Needs of Management

The development of internal auditing is directly attributable to management needs resulting from the growth of large scale enterprises. Far-flung operations and almost complete dependence on ac-

counting data for the direction and control of such operations made it essential for management to have means of assuring itself: (1) that the policies and procedures which it instituted were adequate for the needs of the business and were being followed, (2) that accounting data summarizing operating results were sufficiently reliable to serve as a basis for sound management decisions, (3) that assets were properly safeguarded, and (4) that expenditures were made only for necessary purposes.

These needs suggest the principal ways in which the internal auditor can best carry out his basic function of assisting management. Most important of the internal auditor's many possible activities are those relating to evaluation, compliance, conservation, and verification. Each of these is more fully described below.

Evaluation

Evaluation refers to the internal auditor's constant efforts to ferret out weaknesses and shortcomings in company procedures and methods and to suggest modifications and improvements. Ideally, this activity encompasses all phases of the company's operations, but since the internal auditor's training is normally in accounting, procedures related to the accounting system are likely to receive the closest attention. In the accounting area, internal check is one of the most important considerations, and much of the internal auditor's effort is devoted to evaluating internal check and suggesting improvements.

To illustrate, in the internal auditor's examination of purchasing activities, he might find weaknesses relating to all three elements of internal check. As to information, the auditor might ascertain that figures showing outstanding purchase commitments do not include emergency orders placed by telephone or telegraph, and he would of course recommend the necessary procedure changes to obtain a full reporting. He might recommend that protection could be increased by creating a list of approved suppliers, thus strengthening the assurance that purchases are made from concerns previously determined to be reputable and financially sound. Such a listing would also make it almost impossible for employees, even with collusion, to defraud the company by putting through fictitious purchases from nonexistent vendors and then cashing the checks drawn in payment for those purchases. With respect to strengthening control, the auditor might discover that outstanding purchase orders are reviewed only spasmodically for follow-up of items on which the delivery date has not been met. To assure adequate inventories and to avoid pro-

duction-line delays caused by out-of-stock conditions, the auditor might recommend a tickler system to assure immediate follow-up on slow deliveries.

Illustrations of other possible recommendations which might result from the auditor's evaluation activities would include changing the various purchasing forms to eliminate unnecessary paper work or to speed up the preparation of the forms, and increasing the minimum purchase amount on which competitive bids are required. The latter recommendation could be made in an effort to streamline procedures in cases where the cost and delay involved in securing bids might well outweigh any savings in purchase cost. Here, incidentally, is an excellent example of the valuable benefits which can accrue if the auditor is not confined to the examination of the accounting system but is permitted to study all phases of the company's operations. A matter of top management policy is involved, and only in progressive organizations which recognize the benefits of a broad internal audit program would the auditor's jurisdiction be likely to be so extensive.

Compliance

Carefully formulated procedures and policies are of little value unless they are carried out as intended, and consequently the internal auditor should not only evaluate the procedures and policies of his company but also check for compliance with those procedures and policies. Continuing with the same example of the audit of the purchasing function, the internal auditor's check of compliance with the requirement for competitive bids might disclose instances in which bids were not obtained, or perhaps instances in which purchases exceeding the bid minimum were broken down into smaller orders to circumvent the bidding requirement.

Other possible compliance violations which the auditor's examination might disclose would include the failure of the accounting department to obtain approvals from appropriate department heads on invoices covering goods or services other than materials and supplies, and violations of a company policy that employees must not accept gifts from outside individuals or businesses.

Conservation

Since the primary objective of almost any business is to produce income for its owners, the importance of conserving the resources of the concern is quite obvious, and the internal auditor should be able to play an important part in achieving this objective. The activity

most commonly associated with internal auditing (or auditing of any type for that matter)—the detection of fraud—is, of course, closely related to the conservation of the resources of an enterprise.

Although at one time the detection of fraud was one of the principal functions of the internal auditor, the development of good methods of internal check have made this problem less serious. The internal auditor should always be alert for any indication that fraud has occurred, but his principal efforts are likely to be concentrated on other phases of the conservation objective.

A very important activity along these lines is the detection of losses resulting from carelessness or inefficiency. Such disclosures might range all the way from losses attributable to the improper storage or handling of materials to those caused by the granting of credit to poor credit risks or the failure to take advantage of prompt payment of invoices in order to earn the discounts.

Verification

The vital part played by accounting data in the management of a business enterprise makes it imperative that such data be as accurate and reliable as possible, thus indicating the need for the fourth major activity of the internal auditor: verification. The internal auditor's work in this area parallels rather closely that of the independent auditor. The ultimate aims are different, however, since the internal auditor looks toward the needs of management, whereas the independent auditor is primarily concerned with the needs of third parties.

Examples of the internal auditor's verification activities would include tests of the accuracy of expense distribution coding on vendors' invoices; accounting for all shipping notices and sales invoices for a given period and ascertaining that all goods shipped were billed out showing correct quantities, prices, and extensions; making independent bank reconcilations as a check against those made by other company employees; proving the agreement of the detailed accounts receivable ledger with the accounts receivable control; and corresponding with customers on a test basis to confirm the balances of their accounts.

Other Activities

Although the preceding discussion covers the principal activities of the internal auditor, there are many other ways in which he can be of service to the business by which he is employed. (1) With his general familiarity with company procedures, he can be called upon to assist

in training new personnel. (2) His very presence and the knowledge that all activities will be scrutinized by him are likely to encourage accurate and careful work and to deter employees from considering any attempt to defraud. (3) The internal auditor may be called upon by management to make special investigations, ranging from an analysis of postage expense to the examination of the records of companies supplying materials on a cost-plus basis. (4) The internal auditor often assists the independent auditor in various ways, thus reducing the audit fee. (5) Since the internal auditor will have become acquainted with most phases of the company's operations, the internal auditor or his staff may become the source of executive and managerial personnel.

How the Internal Auditor Operates

The approach of the internal auditor is generally along functional lines, with the program of audit for any given function integrating the major activities of evaluation, compliance, conservation, and verification. Even though the internal auditor works on a year-round basis, the audit of each function will be made periodically, ranging from every six months to as much as every eighteen months in some cases. Separate examinations would cover such functions as credit and accounts receivable, purchasing, accounts payable, payroll, and petty cash.

Fitting the Internal Auditor into the Company Organization

The place of the internal auditor in the business organization, as suggested by the sample organization chart presented earlier in this chapter, is that of staff assistant to the controller. The various staff assistants aid the controller in carrying out his principal line responsibility, which is accounting, as well as in his more general responsibility for furthering the control of company operations as a whole. In some instances, the internal auditor may report directly to the president, or possibly even to the board of directors, although this arrangement is unsatisfactory because their concern with other matters of importance is likely to result in insufficient attention to the internal auditor's reports.

Occasionally the internal auditing function is placed under the treasurer or chief accountant, but both of these arrangements are undesirable because they do not give the internal auditor sufficient independence to perform his work freely. Accounting and the handling of

the liquid assets of a concern comprise the two principal activities which come under the scrutiny of the internal auditor, and the auditor should not be subservient to the heads of either of these activities if management is to be assured that no limitations are placed on the scope of the auditor's examinations, and that prompt corrective action will be taken on the auditor's findings and recommendations.

To further assure adequate independence for the internal auditor, he should at no time perform regular operating functions. At times the internal auditing staff will be made responsible for such procedures as the reconciliation of all bank accounts or approval of all disbursement vouchers before they are paid, but this does not produce an effective internal audit. The main benefits of internal auditing stem from the ability of the auditor to review and appraise independently the operations performed by others, without being burdened himself with routine day-to-day operations. Should a member of the internal audit staff be temporarily assigned regular operating responsibilities, a review of those responsibilities should be made by some other member of the staff.

Internal Auditing Contrasted with Independent Auditing

Although the actual methods and procedures employed by the internal auditor bear a close relationship to those of the independent auditor, other considerations are responsible for marked differences between the two types of auditors. These differences are summarized below:

Internal Auditor	*Independent Auditor*
Primary concern is the needs of management	Primary concern is the needs of third parties for reliable financial data
Company employee	Professional practitioner engaged as an independent contractor
Reviews internal check to determine means of improvement	Reviews internal check to determine the scope of his examination
Should be independent of treasurer and chief accountant, but not of management	Must be independent of management, both in fact and in mental attitude
Continuously works on the audit of company activities	Periodically examines, usually once a year
Examination work is quite detailed	Testing techniques are extensively used

Summary

Internal check and internal audit comprise the principal means by which business management maintains internal control over the extensive activities and operations for which it is responsible. These internal control measures have a direct bearing on the reliability of a company's accounting data, and accordingly the independent auditor should be guided by the following standard with respect to the conduct of his audit examination:

> There is to be a proper study and evaluation of the existing internal control as a basis for reliance thereon and for the determination of the resultant extent of the tests to which auditing procedures are to be restricted.*

* American Institute of Accountants, *Generally Accepted Auditing Standards.*

Review Questions

1. What benefits should good internal check within the accounting system provide for management?

2. How should responsibilities be divided to assure maximum internal check?

3. How can management assure itself that the various phases of its plan of internal check are fully operative?

4. What two steps should be covered when the independent auditor is making a study of a client's internal check?

5. What means are at the auditor's disposal in determining whether prescribed procedures designed to produce good internal check are actually being followed?

6. Why do most auditors make their review of internal check before beginning to apply any audit procedures? At what other time is the review sometimes made?

7. Why is the internal check questionnaire widely used in reviewing internal check?

8. What are the four principal ways in which the internal auditor can be of service to management?

9. Are the internal auditor's activities relating to conservation concerned only with preventing and detecting fraud? Explain.

10. Any one of several management officials may be selected to be responsible for the work of the internal auditor. List each official by title and explain why it would be good or bad to have the auditor report to him.

11. What difference exists in the ultimate purpose of the internal auditor and the independent auditor in reviewing internal check?

Questions on Application of Auditing Standards

12. "An increasingly large precentage of all business defalcations involve collusion." Suggest a reasonable explanation for this situation.

13. State the reasons for the following procedure requirements, all of which help to strengthen internal check.

(*a*) The ticket-taker of a motion picture theatre is required to tear each ticket presented for admission in two and present the stub to the patron.

(*b*) The clerks of a department store are instructed to give the customer his cash register receipt along with the proper change.

(*c*) The waitresses of the Elite Restaurant prepare the customer's check, which the customer then pays to the cashier. The waitresses are instructed not to make corrections on the check, but if an error is made to void the check and issue a new check. All voided checks are to be given to the manager at the end of the day.

(*d*) The Larson Manufacturing Co. prepares six copies of each purchase order. The third copy is sent to the receiving department to be used as a receiving memo, but the form is so designed that the quantity ordered does not print on this copy.

(*e*) After the treasurer of the Ardent Co. signs disbursement checks, the supporting data are returned to the accounting department, but the checks are given to his secretary for mailing.

14. All the following operations are performed by one person in connection with accounting for credit sales of the Johnson Department Store.

(*a*) Credit sales for the day are totaled and reported to the general bookkeeper.
(*b*) Cash collections on accounts receivable for the day are totaled and the cash and an adding machine tape of the cash receipts issued are turned over to the cashier.
(*c*) Sales and cash collections are posted daily to the accounts receivable ledger.
(*d*) A trial balance of the receivable ledger is prepared monthly and the total compared with the total shown by the general control account.
(*e*) Statements are prepared and mailed on each account monthly. Accounts not paid by the tenth of the month are followed up with a series of collection notices and letters.
(*f*) Accounts determined to be uncollectible are reported to the general bookkeeper for write-off of the control account.

If one or more of the above duties were to be assigned to other persons to secure better internal control, list the duties you would delegate in the order of their relative importance—that is, in order from the duty that it is most important to delegate to the duty that is least important to delegate.

Each of the duties delegated to another person would preclude some form of manipulation in which the accounts receivable clerk could engage. Select any three of the above duties and for each of those duties suggest some form of manipulation that could be prevented by delegating the duties.

15. State and justify your choice as to which of the three ways in which internal check meets the needs of management is involved in the following procedure, which is part of an effective plan of internal check: The purchasing department places a copy of every purchase order in an "Unfilled Orders" file, and the copy remains there until an invoice is received. The file is reviewed three times a week.

16. The independent auditor of today directs far less energy and attention than did his predecessors to such matters as fraud and clerical errors. Does this mean that the auditor is now less concerned about fraud and errors? Explain.

17. (*a*) Would the client's use of a carefully prepared budget be considered a factor in the over-all system of internal check? Explain. (*b*) Of what significance would the answer to part (*a*) be to the independent auditor engaged in an examination of the client's financial statements?

18. Since the internal auditor's main function is to be of service and assistance to management, can the independent auditor, who is checking on management, place any reliance on the internal auditor's work? Explain.

19. How would you reply to the head of an internal audit staff who made this statement: "We have a very efficient system of auditing disbursements. One man spends full time reviewing every voucher before it is paid. Thus we not only catch any discrepancies before payment is made, but the time of the person in the accounting department who formerly made the review has been saved."

20. As the internal auditor of Hustler's Department Store, you are discussing with the controller, to whom you are responsible, your plans for an examination of the credit department. The controller questions the need and propriety of the following procedures included in your program: (1) Review all credit applica-

tions, both accepted and rejected, for one month; (2) Review the complete files on all bad debts charged off in a selected month. How would you answer the controller?

21. Under what circumstances would a concern be likely to have an extensive internal audit, but no examination by an independent auditor?

22. Four principal objectives have been suggested, showing how internal audit activities can be of assistance to management. For each objective suggest some form of exception or recommendation that might arise from the internal auditor's examination of a company's voucher system for handling disbursements.

23. Suggest several procedures the internal auditor might employ relative to an examination of accounts receivable. Indicate to which of the four objectives underlying the internal auditor's work each procedure relates, showing at least one procedure for each objective.

4 · Evidence

When the independent auditor expresses an opinion on a client's financial statements he must, of course, have adequate basis for such an opinion. This basis is set forth in the scope paragraph of the typical short form audit report: "Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances."

In carrying out the tests of the accounting records and other auditing procedures, the auditor's purpose is to gain contact with sufficient underlying evidence to satisfy himself that past transactions have been properly entered in the accounts and that the balances of the asset, liability, and owners' equity accounts are in accord with the actual financial position of the business enterprise at the balance sheet date. If the auditor is satisfied that these account balances are, in turn, properly presented in the financial statements, he will have forged a chain which completely links the statements to basic evidence of the client's financial position and results of operations. The forging of such a chain is the intent of the standard of field work, given in Chapter 1, which states, "Sufficient competent evidential matter is to be obtained through inspection, observation, inquiries and confirmations to afford a reasonable basis for an opinion regarding the financial statements under examination."

Evident in the statement of this standard is a characteristic of all auditing standards—a necessity for the auditor to exercise his professional judgment in applying the standard. Two decisions are required in this instance: how much evidence must be obtained in order to form a reasonable basis for the auditor's opinion, and how competent is the evidence which is obtained. These decisions are closely related in that if the available evidence is not of the highest quality, the quantity of evidence to be secured will ordinarily have to be increased, often by consulting supplementary forms of evidence.

In addition to the competence, or quality, of the evidence which is available, other factors affecting the quantity of evidence to be obtained are the effectiveness of the client's internal control, materiality, and relative risk. A discussion of each of these factors is presented below.

Internal Control

The relationship of the client's system of internal control to the over-all scope of the auditor's examination was discussed in the preceding chapter. Although determining the scope of an examination involves other matters, such as the selection of the auditing procedures to be applied, it relates primarily to the amount of evidence to be obtained by the auditor. There is thus an inverse relationship between the degree of internal control present in the client's accounting system and the quantity of evidence which should be inspected or obtained in order to provide an adequate basis for the auditor's opinion.

Materiality

The scope of the auditor's examination covering any single figure in the financial statements will be affected not only by the degree of internal control inherent in the process of arriving at that figure but also by the materiality of the figure. Materiality is not a question of the absolute size of a figure, but of its relative size as compared to other figures in the financial statements. An item of $1,000 on the balance sheet prepared for a corner grocery store would thus be relatively more material than an item of $1,000 on the balance sheet of The Great Atlantic and Pacific Tea Company, which operates the thousands of A&P stores throughout the country.

Since the auditor expresses his opinion on the financial statements as a whole, rather than on each individual figure in the statements, the amount of evidence to be gathered concerning any particular figure is properly influenced by the relationship of the figure to the statements as a whole—or, in other words, by its materiality. Consideration must also be given to materiality in connection with problems other than those relating to the scope of the examination. For instance, Company A might have included in its sales for the year an unusually large sale made at the end of the year under circumstances which would suggest to the auditor that the sale should not have been recorded until the following year. Company B might follow the same basis of recording sales as Company A but have only normal amounts of such sales at the end of every year. The auditor would thus be in equal disagreement in each instance concerning the com-

pany's method of determining when sales should be recorded, but might refuse to give a favorable opinion on Company A's statements while giving a favorable opinion on the statements for Company B. His position would undoubtedly be that the single sale in the case of Company A materially overstated sales, net income, and accounts receivable. The effect on receivables would be less for Company B, and the effect on sales and net income would be almost nil as a result of the offsetting effect of the carry-over of the same situation from the preceding year.

There is no simple test or standard which can be applied in determining materiality, nor can one ever be devised, since the variables are different in each situation. The decision in each situation must be based on the pertinent relationships as determined by the professional judgment of the auditor. An important consideration here would be whether the effect of the questionable treatment of an item would be sufficient to cause an investor to buy or sell, cause a banker to loan, call, or extend an existing obligation, or cause a customer or vendor to establish, discontinue, or resume relations. The ability to judge soundly in such situations so that every decision corresponds with what other auditors would decide under the same circumstances can come only from adequate training and experience, coupled with full knowledge of current thinking in the profession, and the business world as well.

Relative Risk

If there is more than normal risk that an item might have been misstated, additional evidence should be examined to indicate whether or not a misstatement has occurred. This evidence may be obtained through further application of a test procedure to additional items or by applying supplementary procedures as a means of securing other forms of evidence relating to the item in question.

One factor having an important bearing on relative risk is the nature of an item. Cash, for example, is subject to considerable risk of misstatement through fraud or manipulation, as compared with such an item as plant and equipment. Consequently, the audit of cash is likely to consume more time than the audit of plant and equipment, even though plant and equipment might be more material.

Circumstances surrounding a situation will also affect relative risk. The degree of internal control associated with the accounting and handling of an item is one such factor, and the effect of the degree of internal control on the amount of evidence necessary in a given instance has already been pointed out. Other factors would include

the over-all financial status of a company, and changes in income tax rates. The search for unrecorded liabilities should ordinarily be more extensive if a company is in financial straits and in need of additional funds. Similarly, the announcement of an abrupt upward change in income tax rates should suggest the need to make a careful review for possible overstatement of income or understatement of expense in the year prior to the change.

DETERMINING THE COMPETENCE OF EVIDENCE

The auditor must be able to determine the competence of the evidence he consults for the purpose of formulating his opinion on a client's financial statements, just as a mother must determine the competence of the available evidence as to whether or not junior washed his hands and face in accordance with instructions. In this situation, the best evidence is obviously the actual witnessing of the deed, whereas the least competent evidence is junior's solemn assertion that he did so wash his hands and face. Evidence falling somewhere between these two extremes would probably include hearing the water running in the bathroom and inspecting junior's towel for dirty smudges.

Available accounting evidence also varies in reliability, so that the auditor is faced with the problem of evaluating each item of evidence. To aid in this evaluation, evidence may be divided into several rather broad classes. The relative competence of each class of evidence is suggested in the following pages so that some indication of the reliability of an item of evidence may be obtained through determining into which classification it falls. The classes are discussed beginning with the most reliable class of evidence and proceeding to the least reliable.

Physical Evidence

The physical evidence classification is somewhat limited in that assets alone are affected by this classification, and only certain assets are so affected. Physical evidence may be examined in support of a figure for cash on hand, merchandise inventory, or plant and equipment, but there would be no physical evidence supporting an account receivable or bond discount. Only documentary evidence would be available concerning such items.

Although it should be evident that actual examination of a given asset is the best possible evidence that the asset exists, all physical

evidence is not equally reliable. Counting the cash on hand would perhaps seeem to provide adequate support for the cash-on-hand figure included in a balance sheet, but such a conclusion would be doubtful if customers' checks were included. Coin and currency may be quite safely accepted at their face value, since counterfeiting is quite difficult and rather effectively discouraged. A check is not only easily counterfeited, but even if valid may prove to be backed by insufficient funds, with the result that examination of a check should be further supported by evidence that the check was deposited and that the bank was able to collect the full amount.

Physical goods included in inventory may also present a problem when considered as evidence. Diamonds included in a jeweler's inventory, and represented by the jeweler to be of good quality, might actually contain flaws which would not be apparent to the auditor, or the "diamonds" might even be "paste" imitations. Under such circumstances, a statement from a reliable diamond expert that his examination showed the diamonds to be as represented by the jeweler might well represent more reliable evidence than inspection of the diamonds by the auditor. Ordinarily, of course, an auditor would prefer to inspect actual inventory goods himself rather than rely on someone else's written certificate covering the inventory. Thus if part of a client's inventory is stored in a public warehouse, the auditor might visit the warehouse and inspect the goods, even though the client could show a warehouse receipt for the goods and the auditor could obtain a written confirmation from the warehouse stating the quantity of goods being stored for the client.

Documentary Evidence

The type of evidence most commonly referred to by the auditor is documentary evidence. Documents vary widely in terms of their reliability as evidence, however, and further classification of documentary evidence is necessary in order to find some clue as to its reliability. One important basis of classification is whether the source of the document is internal or external; that is, whether it was prepared within the client's organization, or by someone who is completely independent of the client.

Externally Created Documents Sent Directly to the Auditor

If documents prepared by third parties are sent directly to the auditor, they ordinarily constitute evidence of a degree of reliability

approaching that of physical evidence, or even exceeding the reliability of physical evidence, as in the case of the diamonds mentioned above. Such externally prepared documents lose part of their reliabilty if they pass through the client's organization before the auditor inspects them, since there is always a possibility that the documents may have been altered or replaced by fictitious documents.

Extreme caution must be exercised whenever the auditor plans to rely on documentary evidence. This point may be illustrated by reference to the use of external evidence in the verification of accounts receivable. The best indication of the validity of an account is to have the debtor confirm in writing to the auditor the amount which the debtor owes to the auditor's client. In requesting such confirmation, the auditor not only asks that the reply be sent directly to him, but also he encloses a return envelope addressed to him to be used for the reply. In addition, the auditor should verify the address to which the confirmation request is to be mailed to guarantee the authenticity of the reply. The possibility is always present that a fictitious account might be carried under the name of a well-known and reputable firm, but with an incorrect address given. This address would be one to which the person responsible for creating the fictitious account would have access so that he could then respond to the auditor's request with a fraudulent reply indicating that the balance shown by the client's records was correct. The effect of this sequence of events would be that through his negligence the auditor would fail to detect the overstatement of accounts receivable.

Externally Created Documents in the Client's Possession

The possibility that externally created documents which are in the client's possession may be fictitious or altered should not be taken to suggest that such documents are valueless as evidence. They are substantially more reliable than documents originating within the client's organization, and items such as bank statements and vendors' invoices constitute two of the most widely used forms of evidence.

Two considerations should always be kept in mind when the auditor makes use of such evidence. First, the document should be noted for an over-all appearance of authenticity, and any alterations should be carefully investigated. Although it is not good practice for a business to send out papers on which corrections have been made, corrections do occasionally appear. The auditor's responsibilty is, of course, to determine whether an alteration is a correction made to rectify an unintentional error which occurred when the document

was prepared, or whether the alteration was made at a later date for the purpose of misleading subsequent users of the document.

The second consideration in relying on evidence of the class under discussion is the relative ease with which a document may be counterfeited. A note receivable is likely to be extremely weak in this respect, since notes are commonly executed on forms available at any bank or stationery store, and the maker's signature is the only distinguishing feature. Since the auditor is not a handwriting expert, nor expected to be one, a counterfeit note could be readily prepared and passed off to the auditor as being authentic. The need for supplementary evidence under such circumstances is obvious, and confirmation of the validity of the note by correspondence with the debtor is in order.

In contrast to the note receivable, a bond or stock certificate is quite commonly accepted on its face. Only a specialist could reproduce the intricate engraving of the certificate, and such specialists are ordinarily quite careful to accept business only from sources known to be authentic. About half way between the note receivable and the engraved certificate in relative difficulty of counterfeiting is the vendor's invoice. Such a document would have to be specially printed, as against the note form which can be purchased already printed, but the average printer in a large city would not be likely to be as careful about investigating his customer as would the engraver.

Evidence Originating Within the Client's Organization

The auditor obtains a considerable proportion of the evidence he needs from sources within the client's organization. Such evidence may be verbal, as is likely in connection with the review of internal control, but preferably and more frequently it will be documentary. In either case the evidence is likely to be less reliable than the classes of evidence previously discussed, for two reasons. First, the employees giving the information or preparing the documents are under the direct control of management, and therefore the evidence may not be fully acceptable in attempting to corroborate the representations of management. Second, if a defalcation has occurred, information given by employees or documents prepared by them may be falsified in an effort to conceal any manipulations relating to the defalcation.

Internal Evidence Circulating Outside the Business

In spite of these limitations, however, in some instances evidence from internal sources may approach the reliability of externally

created documents. For instance, a paid check bearing evidence of having passed through the bank is generally considered to be fairly conclusive evidence that a liability has been paid, that an expense has been incurred, or that the cost of a new asset has been properly shown in the records.

There are several reasons why a paid check may be considered as having a high degree of competence as evidence. Since cash is the most liquid of assets, there will normally be relatively good internal control in the handling of cash, including its disbursement by check. The assurance of validity created by the presence of good internal control is further enhanced by the fact that a paid check has passed through the hands of persons outside the originating organization, presumably with no objection having been raised concerning the correctness of the check. Finally, the paid check gains in reliability through the opportunity of being tied in with the bank statement, which is externally created.

Only a few internally created documents are subject to any outside review, and none of them has as many protective features as does the paid check, particularly with respect to the limited availability of blank forms and the difficulty of making alterations. Other documents would include a copy of a purchase order returned with the vendor's acknowledgment, a copy of a bill of lading receipted by the carrier's agent, and a bank deposit slip showing a teller's stamp to indicate that the funds have been received.

Internal Evidence Circulating Only Within the Business

Many internal forms and records, even though not receiving the additional validation accruing to such documents which circulate outside the business, may still have a high degree of reliability, with internal control the determining factor. The internal control may be in the form of extensive review of the document by other employees after it is prepared, or segregation of duties so that the person preparing the document has no operating responsibility and therefore no reason for preparing a misleading document or giving misleading verbal information. A good illustration is a receiving memo prepared in the receiving department. The memo will be compared in the accounting department with the company copy of the purchase order for the material and with the vendor's invoice and will be reviewed again when the invoice is paid by the treasurer's office. A work order authorization created by a management committee, used by the accounting department to accumulate costs related to the or-

der, and used as the directive to the maintenance department to do the work, is another illustration of a document receiving the benefit of good internal control measures.

On the other hand, an authorization created by the credit manager directing the bookkeeper to write off an uncollectible account is of limited value as evidence, since the bookkeeper would not be expected to make a critical review of the authorization. But the situation is greatly changed if the credit manager sends the authorization to a member of the controller's staff for approval, along with a copy of the customer's ledger sheet, a record of the collection action which has been taken, and any related correspondence. The controller's representative can act with full freedom since there is no direct line of responsibility between him and the credit manager. He is not likely to approve the authorization unless it is valid, since he would have no reason to do otherwise, having no access to any cash.

Verbal Information and Written Certificates

When the purpose in obtaining verbal information or written certificates from employees is to corroborate data obtained from other sources, the evidence may well be quite satisfactory. A repair man, traveling outside the home office with a complete inventory of repair parts, may be requested to send the auditor a certificate listing the repair parts in his possession. Such a certificate is of little value as evidence that the repair man actually has the listed parts in his possession. On the other hand, if the information in the certificate is desired to verify home office records showing the amount of parts inventory charged out to the repair man, the value of the certificate as evidence would be considerably greater. To further illustrate the point, a verbal or written statement from the credit manager indicating the loss he anticipated from accounts receivable included in the balance sheet would hardly be a sound basis for determining the adequacy of the provision for bad debt losses. But if the auditor had already aged the accounts receivable and arrived at his own estimate of the possible loss, and the estimate of the credit manager was in line with the auditor's estimate, the auditor should be entitled to additional confidence in the credit manager's estimate, and his own as well.

To summarize briefly, the important factors affecting the reliability of internal evidence are (1) whether the documents have circulated through the hands of outside parties, (2) whether good internal control was involved in the preparation and use of documents, and (3) whether the evidence obtained must stand alone, or serves to corroborate other information.

The Books of Record—Journals and Ledgers

Ordinarily evidence is used to support entries and balances in the books of record which are, of course, the primary source of data included in the financial statements. But the records are a form of evidence in themselves. Their reliability as evidence is determined by the amount of internal control associated with their preparation, and their reliability in turn directly affects the amount of collateral evidence which the auditor should obtain in support of the records.

In some instances ledger entries may be accepted as evidence without collateral support. For example, the auditor may seek to determine the collectibility of a large account receivable by ascertaining whether the account was paid subsequent to the balance sheet date. With good internal control present the auditor might well accept the posting of a cash credit to the account as adequate evidence of payment. Lack of internal control would suggest that the credit posting be verified by reference to such collateral evidence as the cash book entry, a copy of the deposit ticket showing the collection was deposited, a statement by the bank verifying the authenticity of the deposit ticket, and the customer's remittance advice which accompanied the check when received by the client. The decision as to which of these items of evidence should be examined, or whether all should be examined, would depend on such factors as materiality, relative risk, and the auditor's determination of how much collateral evidence would be necessary.

Comparisons and Ratios

Further evidence of the reliability of a statement figure may sometimes be obtained by relating it to other figures. Evidence that the amount of salesmen's commissions is fairly stated may be obtained by comparison with the preceding year in terms of both dollars and percentage of sales. Similarly with respect to accounts receivable, the relationship of that figure to sales for the year gives the auditor additional evidence that the account is fairly stated over and above the evidence represented by the balance of the receivable account alone. Comparisons and ratios thus constitute still another form of evidence.

Summary

The decision as to how much evidence the auditor should obtain in support of his opinion on a client's financial statements must be made in accordance with generally accepted auditing standards. In

arriving at such a decision, the circumstances in each individual situation must be considered. These circumstances would include the amount of internal control associated with the accounting process, the materiality of each figure in relation to other figures in the statements, the relative risk that any given figure (or the statements as a whole) might be misstated, and the competence of the evidence available in support of the statement figures. A guide to the competence, or reliability, of any form of evidence may be obtained by noting its classification in accordance with the following categories: physical evidence, documentary evidence originating outside the client's organization, evidence originating within the client's organization, the ledgers and journals comprising the books of record, and comparisons and ratios. It must be remembered, however, that even within each classification variation in reliability is possible.

Review Questions

1. What matters requiring the exercise of judgment are suggested by the auditing standard pertaining to the auditor's field work?

2. What factors are likely to have a bearing on the auditor's determination of the amount of evidence that should be examined?

3. Although the auditor must determine for himself whether or not an item is material, what is the main consideration which should enter into such a determination?

4. Explain why an announcement that income tax rates for the following year are to be lower would affect the relative risk associated with an examination.

5. What classifications of evidence have been suggested as giving an indication of the reliability of evidence?

6. Why are externally created documents less reliable if they are in the client's possession?

7. Why is a paid check a very reliable form of evidence, even though it is created internally?

8. Under what circumstances are verbal information and certificates fairly reliable evidence, even though they receive no benefit from internal control?

Questions on Application of Auditing Standards

9. If an amount of $10,000 is judged to be not material in relation to the balance sheet of a given company, would it be reasonable to assume that the same amount would not be material in relation to the income statement of the company? Explain.

10. "A series of differences disclosed by the auditor's examination cannot be considered individually and be disposed of by determining that each is immaterial." Explain.

11. The A&P food store organization consists of manufacturing units, warehousing units, and retail units. An examination of the company's financial statements would likely be on a test basis both as to the units selected for examination and the transactions of each unit selected for examination. Would you expect the examination to cover the same proportion of each type of unit—for example, one out of every ten? Explain.

12. Justify your choice as to which situation in each of the following instances would likely involve the greater risk of possible error or misstatement of the accounts named.

(*a*) Sales account (gross revenue) of a theatre chain or a railroad company.
(*b*) Receivable control account of a retail department store or a grocery wholesaler.
(*c*) Inventory account of the sporting goods department or the men's shoe department of a department store.

13. Your client, which owns and operates radio station WHY, reports a 200 per cent increase in net income over last year. Of what value would the following information be to you in determining the scope of your examination? "A nation-

wide survey of radio stations showed that stations in cities of 100,000 population or greater averaged a 50 per cent decline in net income as compared to last year, whereas stations in cities under 100,000 population showed only a 10 per cent decline in net income."

14. "Any difference involving more than $100,000 can be considered to be material." Comment on this statement.

15. The balance sheet of the Jay Co. lists accounts receivable totaling $100,000 and total assets of $1,000,000; the income statement shows a net income of $150,000. You estimate bad debt losses on the receivables to be $5,000. How much would you be willing to permit the company's provision for losses on bad debts to vary from your $5,000 estimate without considering the difference to be material? Give reasons for your answer.

16. List, in order of reliability, the various items of evidence that might be examined in support of each of the following:

(*a*) A credit posted to a past-due account after the balance sheet date, showing the account was paid in full.
(*b*) The material costs shown on a job cost card.
(*c*) An account receivable on which no reply was received to the auditor's request that the customer confirm the balance of the account to the auditor.

17. Of what significance would the following information be to an auditor examining a client's financial statements:

(*a*) Sales prices of the client's product are declining.
(*b*) The product guarantee has been increased to three years from one year.
(*c*) The rate of gross profit increased substantially over last year as a result of discontinuing the manufacture and sale of one line of products.

18. State why you would select one item in each of the following pairs of items of evidence to be of superior reliability:

(*a*) In support of the market price used in figuring year-end inventory valuations:
  (1) A newspaper report of market prices.
  (2) A supplier's quotation list on file in the purchasing department.
(*b*) In support of the hours worked by an employee:
  (1) A time card printed by a time clock.
  (2) A sheet on which the employee signs in and signs out, showing the time.

5 · The Auditor's Approach

The over-all approach in making an independent examination of financial statements is governed by the standard of field work which states, "The work is to be adequately planned and assistants, if any, are to be properly supervised."* Two of the most important means of achieving an acceptable level of performance under this standard are the audit program and the audit working papers. Each of these subjects is discussed later in this chapter, following a preliminary discussion of several basic matters pertaining to the auditor's examination.

Necessity of Keeping Information About Client Confidential

In the course of making his examination the auditor will have almost unlimited access to information about the affairs of his client. Much of this information will be of a type which the client would not ordinarily disclose to outsiders, including such information as the amount of sales by classes of products, cost of the various products, changes in design and production, and the salaries of various officers and employees. Failure to treat such information in complete confidence might well result in damage to the reputation of the individual practitioner who violates his client's trust, as well as to the profession as a whole. Clients would hesitate to engage auditors if in so doing they would run the risk of losing control over information which has been closely guarded from outsiders.

To assure present and prospective users of public accounting services that any or all information will be kept confidential, the following rule has been incorporated into the Rules of Professional Conduct of the American Institute of Accountants as Rule 16: "A member shall not violate the confidential relationship between himself and his client." A further result of this rule is to aid the auditor

* American Institute of Accountants, *Generally Accepted Auditing Standards.*

in obtaining information which may be vital to his examination, for it assures the client that such information need not be withheld to keep it confidential.

Although the auditor is governed by the same professional considerations that apply to the attorney or the physician with respect to information he receives about the affairs of his client, communication between the auditor and his client is not privileged under the common law. Except in certain states where this privilege is given by statute, the auditor, unlike the attorney or physician, may be required in court to produce his working papers and to divulge any information which he may hold concerning his client.

Test-checking and the Theory of Probability

As has already been pointed out, an audit of every transaction entered into by a client is not only impractical from an economic point of view, but unnecessary as well, since management is primarily responsible for the accuracy of the accounts and has developed various means of internal control to assure such accuracy. The auditor is usually able to obtain adequate evidence to support his opinion concerning a client's financial statements by limiting his examination to tests of the system of internal control and the data underlying the financial statements.

The justification for accepting the results of a test in lieu of verification of each item lies in the theory of probability. The theory states, in effect, that a sample selected from a series of items will tend to evidence the same characteristics present in the full series of items, which is commonly referred to as the "population" or "universe." This tendency of the sample to evidence the characteristics of the population increases as the size of the sample increases and is expressed numerically in various probability tables and computations, such as Poisson's Distribution.

There is much misunderstanding outside mathematical and statistical circles about the relationship of sample size to probability. The usual assumption is that the probable correspondence between the sample and the population varies primarily with the relationship of the sample size to the total population. For instance, if samples of 100 are selected from a population of 1,000 items with 2 per cent of the items in error, about 90 per cent of those samples will show no more than 3 per cent errors and no less than 1 per cent errors. Many persons would assume that to get similar results from samples drawn from a population of 5,000, the samples would have to consist of 500 items, or 10 per cent of the population (as in the preceding case).

Actually, a sample of 100 drawn from the population of 5,000 will give almost as accurate a picture as a sample of 100 drawn from a population of 1,000. Conversely, samples of 500 drawn from the population of 5,000 will actually give a considerably more accurate picture than will the samples of 100 drawn from the population of 1,000.*

Size of the Audit Sample

As was stated in the chapter on evidence, the extent of the auditor's test-check is determined by the degree of internal control inherent in the client's system and such factors as materiality, relative risk, and the reliability of the evidence consulted. Weighing each of these factors in arriving at a decision on the extent of the tests to be made in any given situation is a matter of professional skill developed through experience and the interchange of ideas with other members of the profession. Under these circumstances, suggesting typical sample sizes for various auditing procedures, as some authors have done, can only mislead the novice and evoke ridicule from the experienced practitioner.

Is there no way, then, in which a person planning to enter auditing work can prepare himself to cope with the problem of sample size? The answer, fortunately, is Yes. Some help will be gained from the discussion in subsequent chapters of this book of the more common factors affecting sample size, but of course even such discussion must still deal with generalities. The best guide for the beginner, and the practitioner as well, is the series of auditing case studies published by the American Institute of Accountants. Each study describes what some accounting firm actually did in making an audit of a specific business. All the pertinent details about the business are given, including financial statements and a description of the accounting system and internal control. This material is followed by a detailed account of the audit procedures actually employed by the auditor, including the extent of any samples when tests were made.

Although the conditions presented in each case would not likely be duplicated in even a similar business in the same field, the reader can determine what was done in a given case and what factors governed the auditor's decisions. Then, faced with the problem of preparing an audit of a similar business, the reader can take any variations into account and modify the procedures to fit the changed conditions. Selected material from three of these case studies has been summarized at the close of the various auditing chapters to assist

* See Appendix E for further discussion of these statistical problems.

the reader in gaining a better understanding of how audit examinations are adapted to the circumstances in each situation. The three case studies selected pertain to a small steel fabricating business, a medium-sized manufacturer of loading and hauling equipment, and a large department store. Other case studies in the series cover a public utility, a corn processing company, a small restaurant, a newspaper publisher, a grain company, and a wholesale distributor of newspapers and magazines.

Selecting the Items for the Sample

There are several methods of selecting the particular items to be included in the sample, once the sample size is determined. From a statistical point of view, random selection is best, and random number tables may be used to assure complete randomness. The auditor seldom uses this method, however, because it is so cumbersome. A fair degree of randomness can be assured by the relatively simple and frequently followed method of selecting every Nth item in a series. The value of N is determined by dividing the total number of items in a series by the sample size. Thus, if a sample of 100 is to be selected from 1,500 items, every fifteenth item would be selected.

The block sample is also quite widely used, but while it is easy to obtain, it does not give all items an equal chance of being selected and is therefore lacking in statistical soundness. When used, the selection is likely to be one month out of a year, or a block from the alphabet, such as all accounts receivable from D through F.

Still another commonly used type of sample is the stratified sample. This type of sample is designed to give the auditor greater assurance that the material items in the population are correctly stated. The stratification is made by selecting a breaking point and verifying all amounts larger than the breaking point and testing those less than the breaking point. Thus, the auditor's instructions might be, "Examine all disbursements of $500 or more and examine every twentieth disbursement under $500."

Test-checking and the Disclosure of Fraud

The preceding discussion of the auditor's use of testing techniques should remind the reader of the statement made earlier that the auditor's examination of a client's financial statements cannot be relied upon to detect fraud in the accounts in all cases. When fraud is present, but the number of fraudulent items is so small that the

statements are not materially affected, there can be no significant assurance that any of the fraudulent items will appear in the auditor's sample or be otherwise detected. However, as the percentage of incorrect or fraudulent items is increased, the probability that one such item will appear in the auditor's sample is likewise increased. Samples should always be large enough and so chosen that in any situation in which the statements are materially affected there will be a good probability that at least one of the fraudulent transactions will appear in the sample.*

Since the auditor's examination may bring him in contact with only a single spurious item or transaction, even though several are present in the records, the need should be readily apparent for extreme care in examining or verifying each item. Carelessness in reviewing but a single item could well be the cause of failing to detect existing fraud. Subsequent disclosure of the fraud by other means would not only be embarrassing to the auditor but might also result in a legal liability.

The presence of just one error or questionable item should be cause for considerable further investigation. If such investigation shows the error resulted from an honest mistake, and there is adequate assurance that such mistakes have not been frequent, the matter may be dropped. But any indication that fraud was involved or that errors may have materially distorted a final figure should be cause for an immediate discussion with the appropriate representative of the client before proceeding further. One of the major purposes for such a discussion should be to determine whether the auditor or the client is to ferret out the particular difficulty. If the auditor is to do the work, the client should understand that such work will increase the fee for the engagement.

Terminology

Certain descriptive terms used in auditing circles are sometimes confusing to persons not acquainted with the profession and are taken up at this point for purpose of clarification. Two such terms are "balance sheet audit" and "balance sheet audit and review of operations." The confusion over these terms arises from the fact that even the audit which concentrates on the balance sheet must include some review of operations. Fortunately, both terms are disappearing from general usage. Most credit grantors now recognize that the

* Appendix E contains a more comprehensive treatment of the subject of sampling and the evaluation of the results of such samples.

balance sheet alone is not an adequate basis for making credit decisions, and therefore little demand exists today for the balance sheet audit.

Although most audits now cover both the balance sheet and the income statement, the cumbersome term "balance sheet audit and review of operations" is rapidly being replaced by the more accurate and descriptive term "examination of financial statements." In addition to its relative brevity, the newer term is more desirable because it avoids the implication of the older term that the income statement receives only a cursory review. The auditor's opinion covers both statements and must be equally well supported with respect to each statement. The following chapters of this book deal almost exclusively with the objectives, techniques, and problems associated with the performance of an audit examination designed to enable the auditor to express an opinion on both the balance sheet and the income statement.

Occasionally, however, circumstances may warrant auditing work which is more extensive than the examination of financial statements. Internal control may not be adequate to assure management that employees are performing their duties properly and accurately, and at the client's request or the auditor's insistence, certain phases of the examination may be expanded to include what is known as a "detailed audit." Since the purpose of such auditing is to review employee performance, each step performed by an employee or a group of employees must be audited. The following instructions relating to a detailed audit of the accounts payable function illustrate how the auditor retraces every step in the handling of accounts payable. The reader should note later the contrast between these detailed audit procedures and the procedures which would be followed in a typical examination of financial statements.

1. Trace all amounts recorded in the voucher register to the appropriate vouchers and vendors' invoices.
2. Note whether the debit distribution coded on each voucher reflects the nature of the materials or services acquired, and that the distribution has been properly recorded in the voucher register.
3. Review each invoice to be sure of its authenticity, and to be certain it is made out to the client and bears a current date.
4. Compare prices charged with the prices shown on the accounting copy of the purchase order.
5. Compare invoice quantities with the quantity ordered as per the purchase order and with the quantity received as shown by the receiving department records.

6. Verify extensions and footings on each invoice, taking careful note that any trade discounts to which the client is entitled have been allowed and properly calculated.
7. Account for all voucher numbers used in the month examined.
8. Prove the totals shown by the voucher register for the month.
9. Trace all postings from the voucher register to the general ledger.

A detailed audit, such as this, might cover all transactions for any stated period of time ranging from a few days to several years in special cases.

The reader should note that the word "check" appears nowhere in the above instructions. Although the layman thinks of the auditor's work as a checking process, the auditor seldom uses the word check because it is too broad. To instruct an assistant to check the invoices from vendors might mean anything from determining that they are all the same color to placing a check mark on each invoice, whereas the intent was probably to have the assistant perform steps 3 to 5 listed above. Audit instructions should always be clear so as to avoid misunderstanding, and the student should begin immediately to avoid using such indefinite terms as "check" in his thinking, and in the expression of his ideas whether in verbal or written form.

Organization Within the Public Accounting Profession

Even though there are a great many individual practitioners in the public accounting profession, most auditing work is performed by accountants operating under a partnership arrangement. Such an arrangement not only makes for freer interchange of ideas, along the lines of "two heads are better than one," but makes it possible to build up and supervise an audit staff which can handle audit engagements far beyond the capacity of the individual practitioner.

Very few accountants have organized under the corporate form for the practice of public accounting. Rule 11 of the American Institute of Accountants Rules of Professional Conduct states:

> A member shall not be an officer, director, stockholder, representative, or agent of any corporation engaged in the practice of public accounting in any state or territory of the United States or the District of Columbia.

The reason for such a rule is the fact that serving the public as a public accountant involves so much personal professional judgment and responsibility that members of the profession should not be

tempted to seek the protection of limited liability which comes with corporate organization.

A partnership of public accountants may range from a few individuals in one office to an organization involving several thousands of persons working in offices in all the principal cities of the world. Such organizations are, of course, necessary in order to serve businesses having plants located throughout the United States and abroad. Within these larger firms, individuals normally specialize in such fields as income taxes, estate and gift taxes, systems designing and installation, and auditing. The auditing staff is usually the largest and may reflect further specialization in accordance with the business activities of the firm's clients. Thus there may be specialists in the auditing of manufacturing concerns, banks and insurance companies, department stores, oil companies, public utilities, and many other types of businesses.

Partner Level

In each of these specialized areas of service there will be several levels of authority. The partner is always at the highest level, and each partner is responsible for all work done directly under him, while at the same time sharing with all of his partners the responsibility for all work done in the name of the firm. An audit partner will generally (1) sign personally all reports or letters expressing the opinion of the firm, (2) pass judgment on any controversial issues concerning the scope of an audit examination or the application of generally accepted accounting principles, and (3) review the work of subordinates who are under his direction. How far the partner will go into details in his review of audit programs, working papers, and reports will generally depend on the policies of his firm, his faith in the quality of work done by his subordinates, and his individual temperament. In addition to these duties, the partner is responsible for obtaining new clients, and he will ordinarily be present at any important conferences with present or prospective clients.

Manager or Supervisor Level

A manager or supervisor assumes the lesser responsibilities of the partner and the more important ones of the senior accountant. Thus he takes over much of the work of planning and supervising audit engagements, reviewing work papers, making any necessary revisions of audit reports, and contacting the senior accountant or officials of the client as problems arise. He assumes full responsibility for mak-

ing most decisions which may be necessary, but he must also recognize those problems of sufficient importance to warrant being referred to a partner for final disposition.

The Senior Accountant

The senior accountant will generally be responsible for all details of the audit engagement, including preparation of the audit program, direction of the work in the field, and writing the audit report. He schedules the work of any assistants working under him, assists them in performing the work, reviews the working papers which they have prepared, undertakes the more difficult phases of the work himself, determines modifications to be made in the audit program as circumstances may warrant, and conducts most of the discussions with the client which arise during the course of the work.

Staff Assistants

Much of the actual verification work on an audit examination is carried out by staff assistants, or "junior accountants" as they are quite commonly called. Even though the beginning assistant must be carefully instructed and supervised, he will be allowed to work more and more on his own as he demonstrates his ability to understand and carry out directions contained in the audit program. Other factors affecting his rate of progress will be his ability to write clearly, and his proficiency in distinguishing between minor problems and questions which he should handle himself and matters which should be referred to the senior accountant for disposition.

There will be ample opportunity to judge the assistant's proficiency at putting his thoughts on paper, since he will have to describe in the working papers the work he has done and his findings and conclusions. The importance of clear, forceful exposition in such cases stems from the fact that often the senior will evaluate the work done by the assistant almost entirely on the basis of the written comments in the working papers. Writing ability must also be demonstrated before an assistant can become a senior accountant, because the senior is expected to write the reports which are presented to the client. These reports must be extremely well written, since they are likely to be the principal means by which the client judges the work of the accounting firm.

Learning to distinguish questions and problems which should be taken up with the senior accountant from those which the assistant himself should be expected to resolve is important for the following reasons. Petty questions are bothersome to the senior accountant and

tend to make it more difficult to complete the examination within the time estimate for the job. At the same time, such questions show an undesirable lack of self-assurance and self-reliance. The opposite extreme is also to be avoided, however. The cocky assistant who overestimates his competence is too likely to make decisions which ought to be referred to the senior accountant; consequently the senior can never be sure when one of these decisions will turn out to be incorrect and result in negating all the careful work that has been done.

Selection for Advancement

Since the senior accountant is usually permitted to choose the staff assistants who will work with him, he will tend to select the men who have demonstrated their ability to grasp and follow instructions, work quickly and accurately, and ask only the necessary minimum of questions. With the assistance of such men he can expect to turn out a good audit well within the estimated time. The result of this arrangement is a natural process of selection which quickly brings to the fore men with the proper ability and other necessary characteristics, and no staff man should ever assume that he was not promoted to senior accountant because no one was aware of his talents.

Managers and partners in an accounting firm have equally close contact with the employees they supervise. Consequently, promotion on the basis of clearly indicated merit is the rule, and a staff man can expect to advance just as quickly as he has shown that he is ready for additional responsibility. That such advancement is likely to be rapid and limited only by the ability of the individual is indicated by the need for men that has resulted from the continuing rapid expansion of the profession and the steady flow of men out of the profession into responsible jobs in industry.

The Audit Program

In the audit program, accountants from the level of partner on down have an effective tool for planning audit work and supervising and controlling the performance of that work. The program is, of course, an outline of all procedures to be followed in order to arrive at an opinion concerning a client's financial statements. The basic responsibility for preparing the program will usually rest with the senior accountant, although any important questions about the program will be cleared with the manager, who may in turn refer some of the questions to the partner in charge of the engagement. The manager will then make a final review of the completed program,

and the partner may make a spot review of certain major phases of the program, based on his knowledge of the client's affairs and any difficulties which are likely to develop.

Since each audit is a special situation, each audit program must be tailor-made to fit all the variables in each engagement. Among the factors which must be considered in preparing an audit program are internal control, the client's accounting procedures, the timing of the work in relation to the balance sheet date, any special instructions, and the size, nature, and extent of the client's operations. Some accounting firms use a preprinted "standard" program as a starting point and make whatever additions, deletions, or changes which may be necessary to fit the requirements of the particular engagement. Such an arrangement not only saves some time but also gives added assurance that no important procedures will be overlooked in preparing the program.

Other firms feel that a "standard" program, even though used primarily as a point of departure, tends to make audits stereotyped and too much of a mechanical process. These firms prefer to approach each engagement as a completely new situation and build the entire program around that situation. They feel that such an approach encourages a closer acquaintance with conditions which should affect the program and produces the best possible program, since each procedure will be specifically designed to meet the immediate need.

Amount of Detail in the Program

Under either of the above techniques for preparing the audit program, there is considerable latitude as to the extent to which the procedures are to be detailed. For instance, the program might simply state, "Count petty cash funds," or it might set forth each step to be carried out in counting the petty cash fund, as in the following highly detailed program:

1. Determine the location and balances in all funds before the examination is begun.
2. Count is to be made as of the beginning of business on January 2.
3. Cash receipts on hand are to be segregated and controlled during the count of petty cash and to be counted immediately on the conclusion of the petty cash count.
4. Cash and cash items are to be listed in detail in the working papers.
5. Rolled coins need not be opened, but packaged currency should be counted.
6. All I.O.U.'s included in the fund should be approved by the

treasurer, and working papers should indicate the date on which they were made, and the position of the maker.

7. All checks representing accommodation cashings should be listed showing the position of the drawer and the date of the check. These checks should be prepared as a separate bank deposit and controlled to the bank by the auditor.

8. Paid bills or receipts evidencing disbursements should be listed in detail showing the payee, reason for the payment, and the date. Approval should be noted in the papers and reviewed to see that it conforms to company policy.

9. Disbursements should be reviewed to see that they conform to company policy concerning the type of items which should be paid from petty cash funds.

10. Be certain that the custodian of the petty cash fund is present during the count, and secure from him a receipt signed in ink for the return of the fund at the conclusion of the count.

As each step in the audit program is carried out the initials of the person doing the work should be placed adjacent to the particular instruction. This requirement enables all affected persons to determine that no prescribed steps have been omitted and provides a permanent record of exactly what work was done and who did it. The assumption should not be made, however, that carrying out the instructions of the program is a simple, mechanical process once the program has been set. Each procedure should be subject to modification as the audit progresses if conditions prove not to be as anticipated or if excessive errors or the suspicion of fraud enter the picture.

Positive Approach

A word of caution to the person studying auditing is perhaps in order at this point. A conscious effort should be made to maintain a proper perspective concerning the auditor's approach, which is essentially positive, rather than negative. The auditor's expectation in making an examination of financial statements is to prove that the statements are properly presented, and only rarely will the auditor find that he should recommend any changes. The approach of a textbook, however, must of necessity be from a negative point of view. The textbook must acquaint the reader with the types of fraud or errors most likely to be encountered, in order that the reader will be certain to detect them if they are present. Similarly, auditing procedures must be presented from a negative point of view, because the reader must understand how the procedures operate to disclose any fraud or error which may be present.

Although the reader is exposed primarily to this negative approach, he must be careful not to assume that the approach of the textbook is identical with that of the auditor. Even though the auditor must be alert to the possibilities of fraud and errors, he ought not to become preoccupied with them. In view of the generally good internal control and competent accounting personnel of most businesses, the logical audit approach is the positive one of attempting to prove that things are as they should be, rather than the negative one of concentrating on the detection of things which may not be as they should be.

Working Papers

The auditor's working papers are an important element of his examination. The need for skill and care in their preparation is evident in the various purposes which they serve: (1) They assist directly in the performance of the audit examination; (2) they provide an historical record showing all the work which has been done; (3) they contain the basis for the auditor's opinion; (4) they provide information to be used in the auditor's report; and (5) they aid partners, managers, and seniors in reviewing and evaluating the work of those under their supervision.

The working papers prepared by the auditor are his property, even though they have been prepared from the client's records. They should be carefully preserved since they will have to be consulted if another audit is made for the following year. Often they may prove useful in providing information of assistance to the client on problems arising at a later date, and of course should a charge of negligence ever be brought against the auditor, the auditor's working papers will constitute the principal evidence in his defense.

Identifying Information: Proper Headings

Each sheet of working paper should be complete in itself to preclude any question about what it is or where it belongs, should it become separated from the remainder of the working paper file. Most important in this respect is the heading, which should always contain three items of information: (1) name of the client; (2) title of the particular schedule, for example, "Analysis of Changes in Provision for Doubtful Accounts"; and (3) the date of the statements being examined. If more than one sheet of paper is necessary to complete a given schedule or analysis, each sheet should not only contain the full three-part heading but also should carry a notation that other

pages are a part of the same schedule. Thus, the notation "1 of 2" indicates that the schedule is continued on a second page carrying the notation "2 of 2."

Each sheet of working paper should also contain the name or initials of the person who prepared the paper and the date on which the work was done. This information aids in fixing the responsibility for each phase of the work and makes it possible to contact the proper person if at any time there is any question about the schedule or the work which was done.

The Trial Balance

The key to any set of working papers is the trial balance, and the auditor will normally prepare his trial balance as soon as the client has made all year-end adjustments. The trial balance is prepared either directly from the ledger or from a trial balance which the client has prepared. In the latter case, as soon as the auditor's trial balance has been completed and the footings proved, each figure should be traced to the ledger for verification purposes, and the auditor should also ascertain that all ledger balances have been listed in the trial balance.

One of the advantages of working from the client's trial balance is in knowing that the ledger is in balance. Then too, if the auditor's figures are not in balance he can be certain the error is his own, and the error can be more readily located.

If in preparing his trial balance the auditor discovers that the ledger is out of balance, he should not attempt to locate the error unless the client specifically authorizes such action. Locating errors is a clerical job for which the client is not likely to be willing to pay professional fees. If the client does authorize the auditor to locate the error, the client should understand that such work will increase the audit fee beyond any estimate that may have been given previously.

Each trial balance page is likely to contain seven relatively standard column headings, as follows:

Account Title	*Index*	*Final Balance Dec. 31, 19— (Last Year)*	*Balance per Books Dec. 31, 19— (This Year)*	*Adjustments and Reclassifications*		*Final Balance Dec. 31, 19— (This Year)*
				Dr	*Cr*	

The heading for the first column is self-explanatory, and the matter of indexing is discussed later in this chapter. The final figures from the previous audit are included for comparative and reference purposes. The column for this year's balances should always include all income and expense balances, even though the balances of these

accounts have already been closed to the retained earnings account. The figure used for the balance of the retained earnings account should be the balance at the beginning of the year, with dividends and the current year's earnings shown below. The sum of these three figures will then be the year-end balance of the account needed to balance the statement. These points are illustrated in the sample working papers included at the close of this chapter.

Adjustments and Reclassifications

There is a widespread belief that the auditor is likely to make a long series of adjusting entries to correct such things as the balance of prepaid insurance or the provision for depreciation, and to record figures which the client has not been able to determine, such as the accruals for property and income taxes. Such entries may be necessary for small concerns in which the accounting staff may not be qualified to handle the full accounting job, but in larger businesses which can afford to employ a qualified accountant, relatively few adjustments will be required. Under the latter circumstances most balances will be substantially correct, and the auditor can satisfy himself that this is so without going to the additional costly effort of determining accuracy to the last penny.

Securing such penny accuracy is not only unnecessary (Col. Montgomery, a patriarch of the accounting profession, had for many years prior to his death in 1953 argued that pennies should be omitted from financial statements), but also is likely to be unpopular with the client. Since most audits are made after the books have been closed and entries for the subsequent period have been made, retroactive entries are hardly worth bothering with unless they materially affect the financial statements.

Entries which have a material effect on the net income figure or the financial statements are usually referred to as adjusting entries, and most auditors insist that these entries be recorded on the client's records to keep them in conformity with the financial statements. Examples would be entries reflecting a material change in the inventory figure or the adjustment of cash and related accounts necessitated by the discovery that the cash records were held open beyond the balance sheet date.

Reclassification entries relate primarily to transfers of balances made within the auditor's working papers. For example, the client may debit sales returns and allowances directly to the sales account, but if the total of these debits is to be shown separately on the statements, the auditor will transfer them to a separate line on his

work papers by means of a reclassification entry. Another illustration would be the handling of credit balances in accounts receivable. If the auditor believes these are important enough to be classified as a liability, he accomplishes the change by means of a reclassification entry.

The entries for adjustments and reclassifications will normally be recorded on separate pages in the working papers, since only the adjustments will be presented to the client for entry in the accounting records. To further identify each type, adjustments may be numbered 1, 2, 3, and so forth, and reclassifications may be numbered 101, 102, 103, and so on.

Each entry on the auditor's control sheets for adjustments or reclassifications should be numbered consecutively as suggested above. In addition, a complete description of the reason for the entry should be given, along with an indication of the working paper schedule from which the information for the entry was obtained. The entry should then be posted to the trial balance and to the supporting working paper.

Alternative Forms of the Trial Balance

In the sample headings for the trial balance given earlier, it should be noted that separate columns were not provided for debit and credit balances. The answer lies in the fact that separate sheets are used for assets, equities (liabilities and the owners' investment), and income statement items. If a credit belongs on the asset page, as, for instance, the balance of the provision for doubtful accounts, the amount will be shown in red, or encircled, and similar treatment will be accorded any debit balances on the liability page. Incomes and expenses can be distinguished on the third page of the trial balance by separate grouping and by the description of each item.

In one form of the trial balance, all accounts are listed on the appropriate trial balance page in the same sequence in which they appear in the ledger. The ledger sequence will, of course, usually correspond with the sequence in the statements. Remaining columns to the right of the "Final Balance" column can then be used to group similar items which will appear as one figure in the statements. Thus the balances of three separate bank accounts and the petty cash fund can be listed in one column and the total of this column shown in the balance sheet as "Cash." Combining related accounts on a statement greatly increases readability.

Under a second form of the trial balance, related account balances

are first listed on separate grouping sheets, and only the totals of these grouping sheets are brought to the top trial balance pages. This method is sometimes referred to as the working trial balance method. Under this arrangement the top trial balance schedules, which summarize these totals, will be similar to the final form of the client's statements, and the statements to be presented in the auditor's report can be readily prepared from these schedules.

The advantage of the working trial balance arrangement is the ease with which the manager or principal in charge of the work can review the work papers. At the very front of the work paper file is a bird's-eye view of the statements with all obscuring details removed. Major problems are quickly spotted under such an arrangement. At the same time, all details are readily available in the grouping sheets, which were the source of the figures on the top trial balance schedules.

The disadvantage of the working trial balance arrangement is the difficulty of transcribing ledger balances to the trial balance pages. Before a figure can be entered, the proper grouping sheet must be located, and if the accounts in the ledger are not carefully arranged in statement order, considerable time can be lost turning from one grouping sheet to another. And, of course, if the sheets do not balance, the process of locating the error by verifying each figure is equally cumbersome. Many auditors feel that the advantages of the working balance sheet form of trial balance far outweigh the disadvantages, and the arrangement is quite widely used. All illustrations of work papers used in this text are based on the use of the working trial balance.

Indexing

The auditor's trial balance should always show an index number for each figure to assist any person using the working paper file in locating the work sheet schedule which supports any given figure. Each accounting firm ordinarily has a uniform plan of indexing which is used on all working papers prepared by the staff. The advantage of a uniform plan is that any person connected with the firm can locate almost instantly any particular schedule in a file of work papers, regardless of who prepared the file.

Indexing systems vary greatly, and the system used in the illustrative working papers in this book is only one of many satisfactory systems. It was selected for use here largely because the author is familiar with this system, having worked with it for several years. The basic outline of the system is as follows:

Trial Balance	*Index*
Assets	B/S-A
Liabilities and owners' equity	B/S-L
Income and expense	P/L
Account	
Cash	A
Receivables and provisions for losses or discounts	B
Inventories	C
Prepaid expenses	L
Investments	N
Intangible assets	P
Plant and equipment and accumulated depreciation	UV
Notes payable	AA
Accounts payable	BB
Accruals	CC
Accrued Federal income taxes	FF
Deferred income	GG
Contingent liabilities	KK
Long-term liabilities	NN
Capital stock	SS
Surplus	TT
Corporation minutes	XX
Sales and sales deductions	10
Cost of goods sold	20
Selling expense	30
General and administrative expense	40
Other income	50
Other expense	60

To illustrate the use of this plan, we might take the example of cash which was used earlier. On the working trial balance page bearing the reference B/S-A in the upper right-hand corner (usually in red to draw attention) would appear the item cash. In the index column on the line for cash would appear the letter A. This indicates that all the details concerning the cash figure are shown on a grouping sheet indexed A, which should appear in the working paper file in its proper alphabetical sequence.

The grouping sheet would have the same column headings as the top trial balance sheet and would contain the following detail in the first four columns:

Account Title	*Index*	*Final Balance December 31, 19— (Last Year)*	*Balance per Books December 31, 19— (This Year)*
First National—General A/c	A-1	$76,205.81	$81,201.27
First National—Payroll A/c	A-2	5,000.00	5,000.00
Last National—Special A/c	A-3	12,305.80	7,506.50
Petty cash	A-4	500.00	500.00
		$94,011.61	$94,207.77
			to B/S-A

Schedule A-1 would probably contain a reconciliation of the general account in the First National Bank as of the balance sheet date. Each figure in the reconciliation would be referenced to a supporting schedule, each with its own index. These supporting schedules, each properly indexed in the upper right-hand corner, might be as follows:

List of outstanding checks	A-1 / 1
Deposit in transit and authenticated duplicate deposit ticket	A-1 / 2
Bank confirmation	A-1 / 3
Summary of detailed audit of receipts and disbursements for September	A-1 / 4
Checks listed for investigation during detailed audit	A-1 / 4a

Filing of Working Papers

Usually two types of working paper files are maintained: annual audit files and permanent files. The annual audit files contain the papers covering a specific engagement, for example, Wilson Company, Audit, October 31, 19—. The permanent files contain information which will be of value to each successive audit that is made. Such information would include data concerning the corporate charter, long-term leases, bond indenture provisions, accounting procedures, and data showing bad debt experience or changes in the accounts for accumulated depreciation.

When a staff man goes to a client's office to begin an engagement, he should take with him the permanent file and the audit file for the previous year. The file for the previous year will serve as a guide in preparing work papers for the current year and carrying out many of the instructions in the audit program. The permanent file will provide much necessary information which has been secured in previous years.

Tick Marks

The auditor makes frequent use in his work papers of a variety of symbols to indicate the work that has been done. These symbols are commonly referred to as tick marks. One of the tick marks which is used almost universally by auditors is as follows: ✓ . Although there is almost a limitless variety, others likely to be used are ✓ ✗ o ⌀ .

Since these tick marks have no special or uniform meaning in themselves, no tick mark should ever be used without giving an explanation of its meaning. On a bank reconciliation schedule, the legend explaining the marks used might appear somewhat as follows:

↖ Traced to ledger balance.
✓ Traced to bank statement.
⌀ Paid check inspected.
⊢ Footed and cross-footed.

The appropriate tick mark would then be placed next to any figures which had been verified as indicated by the legend.

Control of Working Papers

The auditor should never leave his working papers unattended while he is working in the client's office. The papers should be placed in a securely locked brief case or in a sealed file drawer at lunch time and overnight in order to keep any persons in the client's office from gaining unauthorized access to the papers. Such close control is necessary for two reasons. One reason is that persons in the client's employ might attempt to alter information recorded in the work papers for purposes of misleading the auditor or concealing some misdeed. Another reason lies in the fact that the papers are likely to contain information which should not be made available to members of the client's organization. Included would be information concerning the scope of the examination or the method to be used in selecting items to be test-checked. Also, much of the information in the work papers about the affairs of the client will be highly confidential, and the auditor would be violating an obligation to the client if such information became available to unauthorized persons.

Illustrative Audit Working Papers

To assist the reader in visualizing the final appearance of a set of audit working papers, illustrative schedules are given at various points throughout this book in relation to the particular topics being discussed. These working papers have been adapted from the audit of a medium-sized manufacturing firm employing about five hundred persons. The manufacturing process consists primarily of machining rough castings or forgings and assembling these finished pieces, along with a large number of purchased parts, into sub-

assemblies and final assemblies of the half-dozen major types of machines which the company sells. The illustrative working papers should be especially interesting and informative in view of the fact that the company's cost records are based on standard costs, and consequently yield much valuable information from both a management and an auditing point of view.

The top trial balance in working balance sheet form for this audit is given at the close of this chapter. All illustrative detail working paper schedules used throughout the book are indexed to this trial balance.

The Approach of Succeeding Chapters to the Audit Examination

Since most auditors still approach the examination of financial statements from a balance sheet point of view, a similar approach is followed here. Verification of beginning and ending balance sheets not only ties down the figure for net income for the year, but, of course, almost every balance sheet item is directly related to an item on the income statement. As a balance sheet item is verified the auditor's work brings him into direct contact with the related income or expense account, and much of the verification work on income statement items is completed in conjunction with the examination of the balance sheet. Any matters concerning the examination of the income statement not covered in this fashion are discussed in the chapters on income and expense.

In each chapter a three-phase approach is employed in discussing the examination of the statement item under consideration. The first matter discussed is internal control, since the auditor's first step is to study the client's accounting system from the point of view of internal control. The auditor's evaluation of the internal control which exists will, of course, have a direct bearing on the scope of the examination procedures to be applied. To assist in such evaluation, the major elements of good internal control for each item are suggested.

Next, the aspects and problems of good statement presentation are considered, even though the statements accompanying the auditor's opinion will not be prepared until the examination procedures are completed. The reason for departing from a chronological sequence is similar to the reason for taking up the auditor's certificate out of its normal sequence. As the auditor proceeds in the conduct of his examination he must constantly keep in mind the possible effect on the financial statements or on his certificate of all information which he may obtain. For example, a change from the Fifo method of valuing

inventories to the Lifo method would affect the auditor's opinion concerning the consistent application of accounting principles. Similarly, if advances to company officers are included in the accounts receivable control, the auditor must realize at the time of his examination that such advances must be segregated from accounts receivable on the balance sheet.

The third section of each chapter discusses the verification of the dollar amount shown in the financial statements. In approaching this problem the auditor will have certain objectives in mind, and these will guide him in selecting procedures and applying them as required under the particular circumstances. These pertinent objectives are set forth in each chapter, and since they are quite general in their application, the student might well give them special consideration. If the objectives are thoroughly understood, audit procedures designed to attain the desired objectives will be almost self-evident. If a person's objective is to get from Chicago to Pretty Prairie, Kansas, it is immediately evident that he can get there by walking, hitch-hiking, riding a bicycle, driving an automobile, or taking a bus. His choice of transportation will depend on the circumstances—how quickly he wishes to get to his destination, his financial condition, and other such considerations.

The most common procedures for attaining the various audit objectives are set forth in the following chapters. The reader should recognize, however, that a compilation of these procedures would not constitute an audit program. Not all these procedures would be used in any given audit, since many alternative procedures are suggested. Furthermore, since practically every procedure is applied on a test basis, the extent to which each procedure would be applied would have to be determined on the basis of the facts in each case. Some guides to making the proper decisions are given, but actual experience is the final solution to learning to make sound decisions. Such experience can be approximated by consulting such material as the A.I.A.'s *Codification of Statements on Auditing Procedure* and its series entitled *Case Studies in Auditing Procedure.* The value of these publications lies in the fact that they set forth what qualified auditors have determined to be necessary to meet generally accepted auditing standards in specific audit situations that are fully described.

Machine Products Co.
Adjusting Entries

12/31/56

JAS

①				
Raw materials inventory		80,000 00	to C	
Raw materials inventory variance			80,000 00	to 2
To adjust for advance to Acme Foundry Co., charged to inventory in October, not considered in reconciliation of book inventory with physical inventory at 10/31/56 when arriving at inventory adjustment. See C-1/1				
②				
Factory overhead Applied		254,608 12	to 20-2	
Cost of sales - overhead			229,401 92	to 20
Work in process inventory - overhead			21,132 47	to C
Finished goods inventory - overhead			4,073 73	to C
To adjust for over-applied factory overhead. See C-7				
③				
Building		5,721 84	to UV	
Accounts payable - Other			5,721 84	to BB
To record amount withheld on payment for building, pending correction of defects in floor. See U-1				
④				
Accumulated depreciation - factory mchy + equip.		5,192 47	to UV	
Factory machinery and equipment			5,192 47	to UV
To write off Handley automatic screw machine, scrapped during 1956, per U-1. Asset acquired 1942, now fully depreciated. Cost and depreciation are as shown by plant ledger.				
⑤				
Accumulated depreciation - building		457 75	to UV	
Depreciation expense - building - Gen + Admin			320 43	to 30
Depreciation expense - building - Selling			137 32	to 30
To adjust depreciation expense for error in figuring depreciation on new office wing. See V-1				

Machine Products Co.
Adjusting Entries

12/31/56 JAS

(6)

Insurance expense - Factory Overhead	2,949.98		to 20-2
Unexpired Insurance		2,664.98	to L-1
Insurance Expense - Gen. & Admin.		285.00	to 30

To adjust unexpired insurance to agree with audit figures - see L-1

Machine Products Co.
Reclassification Entries

12/31/56 JAS

Accounts receivable - customers (101)		14,976.23	to B
Customers' accounts - credit balances			14,976.23 to B
To reclassify credit balances See B-1			

B/S -

Machine Products Co.
Working Balance Sheet - Assets

J.A. 1/8/

12/31/56

	Index	Final 12/31/55	Per Books 12/31/56
Current Assets			
Cash	A	669,262.24	424,022.07
U.S. Government securities, at cost less amortization (Market value 12/31/55 $150,763.50; 12/31/56 $148,937.50)	N	153,129.70	151,603.06
Receivables	B		
Accounts receivable - customers		678,406.28	691,604.18
Provision for doubtful accounts		(24,108.71)	(26,964.32)
Miscellaneous receivables		6,238.16	7,418.21
Accrued interest receivable		312.50	395.83
Net receivables		680,848.03	672,453.90
Inventories, at the lower of standard cost or market	C		
Raw materials		914,641.87	1,123,456.18
Work in process		481,216.93	627,415.66
Finished goods		195,147.52	119,766.58
Supplies		75,219.81	76,418.91
Total inventories		1,666,226.13	1,947,057.33
Total current assets		3,169,466.10	3,195,136.36
Other Assets			
Prepaid insurance	L-1	33,631.42	37,962.68
Prepaid property taxes	L-2	19,221.03	20,774.27
Total other assets		52,852.45	58,736.95
Property, Plant, and Equipment	UV		
Land		41,362.89	41,362.89
Buildings		689,237.51	740,734.09
Machinery + equipment - factory		615,958.63	650,251.58
- office		23,642.18	26,200.28
Total property		1,370,201.21	1,458,548.84
Accumulated depreciation	UV		
Buildings		206,771.25	221,585.93
Machinery + equipment - factory		321,416.89	375,973.77
- office		7,351.74	7,306.59
Total accumulated depn		535,539.88	604,866.44
Net property		834,661.33	853,682.40
Total assets		4,056,979.88	4,107,555.71
Adjustment totals from B/S-L			
Total adjustments			

Adjustments and Reclassifications Dr	Cr	Final 12/31/56
		424 022 07
		151 603 06
14 976 23		706 580 41
		(26 964 32)
		7 418 21
		375 83
		687 430 13
80 000 00		1 203 456 18
	21 132 47	606 283 19
	4 073 73	115 692 85
		76 418 91
		2 001 851 13
		3 264 906 39
	2 664 98	35 297 70
		30 774 27
		56 071 97
		41 362 89
5 721 84		746 455 93
	5 192 47	645 059 11
		26 200 28
		1 459 078 21
457 75		221 128 18
5 192 47		370 781 50
		7 306 54
		599 216 22
		859 861 99
106 348 29	33 063 65	4 180 840 35
257 558 10	330 842 74	
363 906 39	363 906 39	

B/S - L

Machine Products Co
Working Balance Sheet - Liabilities

J.A.
1/8/

12/31/56

	Index	Final 12/31/55	Per Books 12/31/56
Current Liabilities			
Notes payable	A A	800,000 00	100,000 00
Accounts payable - vendors	B B	306,925 28	415,881 21
- other	B B	53,159 55	50,406 97
Accrued liabilities	C C	59,664 85	56,789 89
Provision for federal and state income taxes	F F	1,112,295 03	1,149,280 33
Less - U.S. Treasury Tax Notes	N-1		(1,000,000 00)
Total current liabilities		2,332,044 71	772,358 40
Stockholders' Equity			
Capital stock, no-par, stated value $10 at 12/31/56. Authorized, 300,000 shares; issued 100,000 shares at 12/31/55, 150,000 shares at 12/31/56	S S	1,000,000 00	1,500,000 00
Amounts received on capital stock in excess of stated value	T T-1		450,911 72
Retained earnings			
Reserved for possible inventory price declines and other contingencies	T T-2	250,000 00	250,000 00
Available for dividends			
Balance beginning of year	T T-2	270,580 26	474,935 17
Net income for the year	P/L	1,004,354 91	1,209,350 42
Dividends paid	T T-2	(800,000 00)	(550,000 00)
Balance end of year	T T-2	474,935 17	1,134,285 59
Total stockholders' equity		1,724,935 17	3,335,197 31
Total liabilities and stockholders' equity		4,056,979 88	4,107,555 71

	Adjustments and Reclassifications		Final
	Dr	Cr	12/31/56
			100,000 00
			415 881 21
		20 698 07	71 105 04
			56 789 89
			1 149 280 33
			(1 000 000 00)
			793 056 47
			1 500 000 00
			450 911 72
			250 000 00
			474 935 17
	257 558 10	310 144 67	1 261 936 99
			(550 000 00)
			1 186 872 16
			3 387 783 88
	257 558 10	330 842 74	4 130 840 35

P/L

Machine Products Co
Working Income Statement

12/31/56

J.A.S.
1/8/57

	Index	Final 12/31/55	Per Books 12/31/56
Total sales	10	10 535 683 86	11 463 205 89
Less sales returns + allowances	10	11 315 41	12 468 23
Net sales		10 524 368 45	11 450 737 66
Cost of sales, at standard cost	20	7 272 338 29	8 085 533 79
% net sales		69.1%	
Variances from standard			
Materials - Price	20	133 784 20	41 208 63
- Use	20	28 033 55	22 998 18
Labor - Price	20	7 234 52	4 768 32
- Use	20	29 319 29	25 276 73
Overhead	20	(15 056 43)	(257 558 10)
Inventory variance	20	71 831 25	149 351 20
Total variances		249 146 38	(13 955 04)
% net sales		2.4%	
Cost of sales, at actual cost		7 521 484 67	8 071 578 75
% net sales		71.5%	
Gross margin		3 002 883 78	3 379 158 91
% net sales		28.5%	
Selling expense	30	364 755 38	360 146 87
% net sales		3.5%	
General + admin expense	30	505 028 58	541 305 82
% net sales		4.8%	
Total operating expenses		869 783 96	901 452 69
Income from operations		2 133 099 82	2 477 706 22
% net sales		20.2%	
Other income	50	3 116 49	3 222 31
Other expense	50	(28 861 40)	(16 578 11)
Net income before taxes		2 107 354 91	2 464 350 42
Provision for federal and state income taxes	FF	1 103 000 00	1 255 000 00
Net income		1 004 354 91	1 209 350 42
% net sales		9.5%	

Adjustments and Reclassifications Dr	Cr	Final 12/31/56
		11,463,205.89
		12,468.23
		11,450,737.66
	229,401.92	7,856,131.87
		68.6%
		41,208.63
		22,998.18
		4,768.32
		25,276.73
257,558.10		—
	80,000.00	69,351.20
		163,603.06
		1.4%
		8,019,734.93
		70.0%
		3,431,002.73
		30.0%
	137.32	360,009.55
		3.1%
	605.43	540,700.39
		4.7%
		900,709.94
		2,530,292.79
		22.2%
		3,222.31
		(16,578.11)
		2,516,936.99
		1,255,000.00
257,558.10	310,144.67	1,261,936.99
		11.0%

Review Questions

1. What purpose is served by including Rule 16 pertaining to the confidential relationship between the auditor and his client in the Rules of Professional Conduct?

2. How is the theory of probability useful to the auditor in his work?

3. How can the auditor determine how much test-checking is enough?

4. What type of sample should the auditor generally use when the population being tested includes both large and small amounts? Explain.

5. Distinguish between an examination of financial statements and a detailed audit.

6. What are the main functions normally performed by the partner of a public accounting firm?

7. Discuss the relative importance of technical ability and sound judgment at the junior level and at the partner level in public accounting.

8. What are the advantages and disadvantages of using a "standard" audit program?

9. What purposes are served by the auditor's working papers?

10. What information should be included in the heading of each working paper schedule?

11. Distinguish between adjusting and reclassification entries.

12. What type of information is likely to be found in the auditor's permanent files?

13. Why is it essential that the auditor keep careful control over his working papers?

Questions on Application of Auditing Standards

14. Since the usual audit engagement is concerned primarily with the examination of financial statements and not with the detection of defalcations, is it reasonable to conclude that businesses are unconcerned about defalcations? Explain.

15. "A good accountant should be able to make an examination of financial statements without first preparing an audit program." Comment.

16. Would you set out to purchase a used automobile without first preparing a "program" covering the scope of the "examination" you intend to make before you will agree to buy the car? Suggest such a program.

17. Explain why conclusions based on a sample of 200 drawn from a population of 2,000 are about as accurate and reliable as those based on a sample of 200 drawn from a population of 20,000.

18. Large public accounting firms sometimes try to arrange the audit assignments of each staff man so he can become a specialist in handling audits for some particular type of business, such as retail stores, financial institutions, oil companies, or manufacturing concerns. What advantages and disadvantages may result from such specialization?

19. "While in general the independent auditor should not strive to assure himself that the items on the financial statements are accurate to the penny, cash would be an exception to that rule." Comment.

20. As the auditor for Kermit and Fox, a wholesaling concern, you note the very weak financial condition of the concern. Vendors selling to the organization have not been paid according to credit terms, and large amounts have been borrowed from local banks. A number of these loans are past due, and the bankers are threatening to bring involuntary bankruptcy proceedings.

Shortly after completing the Kermit and Fox examination, you begin your examination of Smith Manufacturing Co., where you find a substantial receivable from Kermit and Fox. Although part of this account is already past due, you find that the credit manager of Smith Manufacturing Co. believes that the account will be collectible in full, and no provision has been made for a possible loss on the account.

How would you proceed in your examination of Smith Manufacturing Co.?

21. To what extent should an accountant assigned to a repeat engagement make use of the working papers of the audit for last year, assuming another staff member made the examination.

Problems

22. Index the following related working paper schedules in accordance with the plan outlined in the text.

Inventory summary
Analysis of raw materials control account
Analysis of work in process control account
Test counts of raw materials
Summary of raw materials reduced to market
Pricing tests of raw materials
Number of days' supply on hand—major items of raw materials, current production
Number of days' supply on hand—major items of raw materials, replacement parts

23. From the following information, prepare a working paper schedule that will disclose all changes in the retained earnings account of the Windsor Company for the current year, and indicate what verification you would have made of the various figures. The verification should be sufficient to satisfy yourself that the figures can be included in the statement of retained earnings that will be covered by the certificate of your firm.

1. Balance of retained earnings as of close of previous year, verified by your accounting firm, $30,281.90
2. Net income for the current year, $12,851.20
3. Dividend declared July 1, paid July 15, on 10,000 shares of common stock, $7,500
4. Transfer to reserve for contingencies authorized by board of directors on December 15, $5,000

24. From the following list of account balances supplied by your client, the Adams Co., prepare working balance sheet and profit and loss schedules, and any

grouping sheets that may be necessary. Do not head up columns for other than the current year's balance.

Accounts payable	$ 45,328.14
Accounts receivable—trade	95,821.50
Accumulated depreciation on plant and equipment	4,871.30
Accrued property taxes payable	405.01
Accrued salaries payable	819.20
Common stock	80,000.00
Cost of goods sold	196,093.84
Current provision for doubtful accounts	1,005.90
Depreciation expense	1,421.15
Dividends declared and paid	12,000.00
Due from officers and employees	2,807.10
Estimated loss on doubtful accounts	2,190.18
First National Bank—Payroll account	1,000.00
First National Bank—Regular account	4,875.50
Income taxes payable	5,771.85
Income tax expense	5,771.85
Inventory—Main warehouse	85,914.20
Inventory—Branch warehouse	23,109.45
Inventory shortage	1,390.58
Last National Bank—Special account	2,019.80
Merchandise in transit	6,990.05
Net sales	287,194.52
Officers' salaries	15,120.30
Office salaries	20,201.58
Office supplies expense	721.37
Petty cash fund	250.00
Plant and equipment	12,304.10
Prepaid expenses	470.50
Prepayments to suppliers	7,120.18
Reno Bank and Trust Co.—Branch collections	1,805.70
Retained earnings—beginning of year	?
Selling expenses	13,318.43
Social Security taxes payable	191.54
Taxes expense	1,809.10
Withholding taxes payable	362.18

25. Comparison between the inter-office account of City Wholesale Hardware Co. with its suburban branch and the corresponding account carried on the latter's books shows the following discrepancies at the close of business, September 30, 1956.

1. A charge of $870 (office furniture) on HO taken up by branch as $780
2. A credit by HO for $300 (merchandise allowance) taken up by the branch as $350
3. HO charged branch $325 for interest on open account which branch failed to take up in full; instead, branch sent to HO an incorrect adjusting memo, reducing the charge by $75 and set up a liability for the net amount.
4. A charge for labor by HO, $433, was taken up twice by branch.
5. A charge of $785 was made by HO for freight on merchandise, but entered by branch as $78.50.
6. Branch incorrectly sent HO a debit note for $293, representing its proportion of bill for truck repairs; HO did not record it.

7. HO received $475 from sale of truck which it erroneously credited to branch; the branch did not charge HO therewith.
8. Branch accidentally received a copy of HO entry dated 10/10/56 correcting No. 7 and entered a credit in favor of HO as of September 30, 1956.

The balance of the account with the branch on the head office books showed $131,690 receivable from the branch at September 30, 1956. The inter-office accounts were in balance at the beginning of the year.

(*a*) Prepare a schedule showing your computation of the balance of the inter-office account on the branch books before adjustment on September 30, 1956.

(*b*) Prepare journal entries to adjust the branch books.

(*c*) Prepare a reconciliation of the balances of the branch and home office accounts at September 30, 1956.

(A.I.A.)

6 · Receivables

The audit verification work upon which the auditor's opinion is largely based comprises the subject matter of this and the following nine chapters. Each chapter follows a uniform three-step plan of organization in dealing with the particular financial statement item in question. The elements of good internal control are presented first, then the requirements and implications of minimum standards of financial statement presentation are discussed, and last the matter of the auditor's verification work is covered. The auditor's objectives are set forth in relation to the verification work, and then the procedures most commonly used to attain those objectives are described.

The subject of receivables has been chosen to introduce the basic plan of this book to the reader, primarily because the auditor's objectives in the verification of receivables are relatively obvious. Once these objectives are understood, the reader should be able to develop the objectives for other statement items and test his ideas against those expressed in this book. Receivables also appear to be a logical starting place for the discussion of the auditor's examination, since revenues, the lifeblood of business, ordinarily flow in by way of the receivables records.

INTERNAL CONTROL

The natural tendency toward specialization of labor in large businesses brings with it the segregation of duties which is an important element of good internal control. The fact that a business is large does not, however, guarantee that it will have good internal control, since there is always a possibility that a duty which ought to be handled separately may be combined with some other duty for reasons of convenience and with no thought to the effect on internal control. A small-scale operation, on the other hand, does not lend it-

self to strong internal control, but careful separation of key duties between only two or three persons can produce surprising results. In addition, the opportunity for close supervision of all activities and intimate contact with operating details affords an important form of internal control to the manager of a small business. Thus, regardless of how favorable or unfavorable conditions may appear on the surface, the auditor should always make a careful study of the accounting system to determine how much internal control is actually present, how much faith he can place in the accounting records, and how extensively he should therefore examine those records.

Charges to Receivables

Under good internal check, any person who handles or has access to collections from customers should have no other responsibilities relating to accounts receivable. This comment applies particularly to the process of originating and establishing control over the charges to customers for sales. Violation of this aspect of internal check would open the way for a person to bill a customer but omit the charge from the day's accounting figures, and then merely appropriate the payment when it is received.

Ideally, a person who has no responsibility for either cash handling or accounting should handle the "billing" function. Billing includes determining the price at which the customer is to be charged, extending price times number of units shipped as shown by the shipping department, and preparing an invoice showing the terms and the amount which is due. In addition, the total of the invoices written each day should be determined, to establish general ledger controls and a figure against which the accounts receivable bookkeeper should balance after posting to the customers' accounts.

Non-cash Credits

Another very important aspect of internal check over receivables is the approval of credits to customers' accounts for returned goods, allowances, or uncollectible accounts. The approval of such credits represents a key operating responsibility, and the authority should be retained by the general manager in small organizations and should be delegated only to a person of sufficiently high organizational rank in larger concerns. Proper delegation of this authority is important from a business point of view since the approval of these credits presents an excellent opportunity to detect operating deficiencies which are producing costly returns and allowances. Poor judgment in granting credit and ineffective collection procedures can also be detected.

These deficiencies will be slow to appear, however, since considerable time may elapse before an account is determined to be uncollectible, and other more timely methods of disclosing the situation are available.

A person authorized to approve non-cash credits should under no circumstances have access to cash collections. Failure to follow this rule is practically an engraved invitation to an employee to defraud the business by withholding cash collections. After misappropriating the collections, the employee can readily conceal the act by authorizing a credit for an allowance or for returned goods for the amount involved. Should the abstracted cash represent a final payment from a customer, the employee can dispose of the remaining balance on the records by authorizing the write-off of the account as a bad debt.

Cash Receipts

Complete separation of accounting and operating responsibilities has been stated earlier as being a cardinal rule for achieving good internal check. This rule certainly applies to receivables, and if any separation of duties is possible, the handling of cash should be separated from the preparation of the accounting records. Failure to make this separation gives the employee handling both functions unlimited possibilities for manipulating the records to conceal the theft of cash receipts. He can credit a customer's account for a remittance which has been withheld, by making the usual entry in the cash receipts record and then understating the total of the cash column and overstating the total of the cash discount column. He can also credit the account by means of a journal entry, burying the offsetting debit in some expense or asset account. Credit must be made to the customer's account for the payment which has been withheld in order to avoid the possibility that someone else might attempt to collect the amount which would otherwise appear to be past due. Collection effort would probably reveal that the payment had been misappropriated.

If the theft cannot be readily concealed through manipulation of the general ledger records, debits to fictitious accounts in the receivables ledger can be used to offset the necessary postings crediting customers for withheld remittances. The existence of this possibility for concealing the embezzlement of cash receipts suggests that mere separation of accounting and cash handling may not be enough. To obtain maximum protection against fraud, the person handling cash should not even be permitted to have access to the receivables records.

Pre-list of Cash Receipts

Protecting cash receipts by the proper separation of duties, as suggested above, is particularly desirable since no added work is involved. Occasionally, however, conditions may warrant the expenditure of extra effort in an attempt to secure even greater protection. Such extra effort is likely to be in the form of establishing control over collections on receivables before the cash is released to the cashier. The usual arrangement is to have the person who opens the mail make a record in triplicate of all cash received. One copy of this pre-list is receipted by the cashier and retained by the person who opened the mail. Another copy is given to the cashier for information purposes, and the third copy is sent directly to the accounting department or to the treasurer. This copy is then compared with the duplicate copy of the bank deposit slip as proof that all cash received has been deposited.

Two safeguards are likely to deter the person opening the mail from withholding any collections. First, such a person would have less opportunity than the cashier to cash any checks which had been misappropriated. Second, the receivables records establish eventual accountability for all cash collected on accounts receivable, and a person handling mail and other routine secretarial duties would be less likely to understand how the receivables records could be manipulated than would the cashier, whose work is more closely related to accounting.

Credit and Collection Activities

Since granting credit and collecting delinquent accounts are highly specialized activities, they are seldom assigned to anyone handling accounting or cashiering work. If a complete three-way division of credit, accounting, and cash can be maintained, excellent internal check is practically assured. The person handling the accounting can be relied upon to pursue the objective of accurate records with no temptation to deviate from that goal. If the person handling credits and collections has no access to cash, his sole concern will be to collect the amounts shown by the accounting records. The cashier, then, has no alternative; all cash collected must be deposited and reported. If any cash is withheld the customer will not receive credit for the payment, and when collection effort is applied to the apparently delinquent account the true situation will be readily disclosed.

An important item in this three-way check is the regular mailing of statements to customers with open account balances. The statements are usually prepared as a by-product of the posting of the accounts receivable records and are often mailed by the bookkeeper who prepared the records. By handling the statements in this way there is created an additional opportunity for the customer to complain should any discrepancy occur. If the statements are normally mailed by someone other than the bookkeeper, internal check is further strengthened, particularly if the statements are occasionally reviewed and balanced with the ledger before they are mailed.

Proving the Record of Receivables

The balancing of detailed receivables records with general ledger controls is an important step in assuring the accuracy of the receivables records. This assurance is strengthened if the receivables records and the general ledger are not posted by the same person, and if the trial balance of the receivables ledger is periodically prepared by someone other than the bookkeeper. The purpose behind the independently prepared trial balance is not primarily the detection of fraud, inasmuch as the bookkeeper is presumed to have no access to cash. Rather, the purpose is to ascertain that the bookkeeper has not attempted to conceal an out-of-balance condition in an effort to avoid criticism. Although no immediate monetary loss would be involved in such a case, the errors should be uncovered and corrected since an overstated account balance might result in customer dissatisfaction. An understated account balance could actually result in an eventual loss if the customer paid only the smaller amount shown by the records.

Internal Reporting

In a small business the manager may well be able to approve all new accounts, review the receivables ledger regularly to determine what collection action is necessary, and even occasionally prepare the trial balance to determine that the subsidiary ledger is in balance. In larger businesses the various management responsibilities are assigned to a group of officers, and the treasurer would assume the above-mentioned duties as part of the total responsibility for the financial affairs of the business. In the very largest businesses the treasurer's responsibilities relating to receivables are likely to be assigned to a credit manager who may in turn assign routine matters of credit and collection to well-qualified assistants.

The loss of personal contact with the receivables in these larger organizations must be replaced by good internal reporting: a vital phase of good internal control. To provide the necessary information to follow up on delegated responsibilities with respect to receivables, the following reports are likely to be necessary:

Number and amount of requests for credit: approved; rejected.
Turnover of receivables.
Delinquency—aging of account balances.
Summary of accounts determined to be uncollectible; long-term trend of uncollectible accounts in relation to sales.

In situations where internal reporting is necessary but inadequate, the auditor should compensate for the lack of control by increasing the scope of his examination of receivables, just as he should if any other phases of internal check are weak.

Internal Auditing

Further bridging of the gap between management and operations in large businesses is obtained through an effective program of internal audit. One of the principal ways in which internal auditing can be of assistance is through verification of the accounting records and the various internal reports based on those records. Confirmation of accounts receivable balances by corresponding with customers is one of the more important internal auditing activities designed to verify accounting figures. Fictitious accounts, collections which have been misappropriated, and bookkeeping errors, can all be readily disclosed by effective confirmation procedures. As a supplement to confirmation of accounts receivable balances, the internal auditor should make direct verification of the entries to the accounts receivable records. Verification of the trial balance of accounts receivable and comparison of the trial balance total with the balance of the accounts receivable control is also important.

Further proof of the debits to accounts receivable should be made by footing the sales journal and examining invoices and shipping records in support of sales journal entries. Similarly, credits for cash receipts, allowances, returned goods, and bad debt write-offs should be traced to supporting records and source documents. In each instance the auditor should review the system of internal check to be certain that it is adequate, and the individual transactions should be reviewed for full compliance with the prescribed system of internal check, particularly with respect to the granting of approvals and authorizations.

Conservation of company resources should also be noted in the course of this review. The internal auditor should satisfy himself that sound judgment was exercised in extending credit to customers, that credits for returned goods are supported by records showing that the goods were actually returned, that allowances were granted only when fully warranted by the circumstances, and that accounts were written off as bad debts only after all reasonable steps were taken to collect the accounts.

Since delinquency reports and aging analyses are so vital in appraising credit operation, the internal auditor should ascertain that these reports have been correctly prepared. The reports should be traced to supporting work sheets, and the work sheets should in turn be reviewed to determine that they reflect the actual condition of the accounts receivable.

When notes receivable are held, the internal auditor should periodically determine that all notes are accounted for by inspecting the individual notes in support of the notes receivable records.

STANDARDS OF STATEMENT PRESENTATION

In most balance sheets, receivables are likely to be described by such terms as "Accounts Receivable," "Accounts and Notes Receivable," or "Accounts Receivable less Allowance for Uncollectible Accounts." If no further information is given, the statement reader should be warranted in making the following assumptions:

1. That all the receivables resulted from arms-length transactions with third parties, and not from transactions with officers, employees, or subsidiary companies.
2. That only receivables resulting from normal trade transactions with customers are included.
3. That any potential losses have been provided for, and that therefore the full amount shown is expected to be realized in cash. (Notation should be made if a provision for doubtful accounts has been deducted from the gross receivables, with only the net amount shown in the balance sheet.)
4. That the amount of cash to be realized will be received within one year, or within one complete operating cycle if the cycle is longer than a year.
5. That the business has full ownership of the receivables, with no liens outstanding against them.
6. That no liabilities have been offset against the receivables.

Since statement readers are entitled by custom and good accounting practice to make the above assumptions, the auditor must determine in the course of his examination that none of the assumptions has been violated. If his examination reveals that material amounts of receivables exist which cannot be properly classified with the trade accounts receivable, separate classification of those receivables in the balance sheet is essential. Some of the more common types of items which may have to be shown separately would include:

Installment receivables.
Receivables from officers or employees.
Receivables arising from sales or advances to nonconsolidated subsidiaries.
Receivables arising from transactions other than the sale of merchandise (for example, proceeds of the sale of plant assets, insurance claims, claims for tax refunds, or utility deposits).
Credit balances in accounts receivable (if material, these balances should be reclassified as current liabilities).

There are few procedures specifically designed to reveal the existence of receivables such as those mentioned above, and as a consequence the auditor should be alert in performing each procedure relating to receivables or other accounts, in order that any facts bearing on the classification or presentation of receivables will be noted and given adequate consideration. If accounts receivable have been sold with recourse for uncollectible accounts or if the accounts have been pledged to secure an indebtedness, the auditor must be certain that the statements contain full disclosure of the facts.

VERIFICATION OF STATEMENT AMOUNT

The objectives and procedures relating to the verification of receivables and inventories underwent drastic change in the late 1930's. These changes and the events leading to these changes are discussed briefly at this point to give the reader a better understanding of generally accepted auditing standards, as they exist today, concerning receivables and inventories. Prior to 1939 independent examinations of financial statements seldom included procedures designed to enable the auditor to determine whether the receivables were valid obligations of existing concerns, and whether the inventories actually existed and were accurately counted as a basis for the final inventory figure. Although such procedures were occasionally carried out either at the suggestion of the auditor or the request of

the client, they were excluded from most examinations as being too costly and relatively unnecessary. Management usually certified the validity of the receivables and the accuracy of the inventory count as well as the existence of the inventory, and this arrangement was generally understood and accepted by those who used audited financial statements.

In 1939, however, disclosures concerning the gigantic $20,000,000 McKesson and Robbins fraud* provided dramatic evidence of the need to strengthen auditing standards with respect to receivables and inventories. The American Institute of Accountants responded promptly and in September, 1939, adopted a report known as "Extensions of Auditing Procedure,"† which increased materially the auditor's responsibility concerning receivables and inventories. In spite of the problems involved and the added expense to clients desiring an unqualified opinion on their financial statements, this report stated that henceforth an examination designed to permit the expression of an unqualified opinion must include correspondence with debtors of the client to establish the validity of receivables and must include observation and tests of the client's inventory taking to establish the existence and accuracy of the inventory. These added requirements are now understood to be part of generally accepted auditing standards, and the resulting rise in the level of auditing standards has been highly beneficial. Financial statements and the accompanying auditors' opinions are now more meaningful and useful. There is substantially less likelihood that audited statements may at a later date prove to have been misstated, through no fault of the auditor, but with undesirable repercussions that result from a lack of understanding of the situation.

In verifying the amount of receivables shown in the balance sheet the auditor has three main objectives:

1. To substantiate the statement amount through supporting internal records.
2. To establish the validity of the receivables.
3. To determine the collectibility of the receivables.

There are various procedures which the auditor may employ in attaining the above objectives, and these procedures will normally consume the bulk of the auditor's examination time spent on receivables. The application of these procedures is not, however, a problem which is distinct from matters of internal control and statement presentation. For organizational purposes these items are

* See Appendix B.
† See Appendix C.

taken up separately, but the reader should remember that internal control directly affects the selection and extent of application of verification procedures. In turn, performance of these procedures often reveals information about the actual operation of internal control which may necessitate revision of the planned verification procedures. Also of vital importance is the fact that the verification procedures must be relied upon to disclose all matters having a bearing on problems of statement presentation.

Each of the procedures which is commonly employed in verifying the amount of receivables is discussed below under its related objective. In selecting the appropriate procedures to be used and in determining the extent to which the procedures should be applied, the auditor's judgment and knowledge of generally accepted auditing standards are of utmost importance. Factors which should be considered in making these decisions are mentioned whenever appropriate.

Substantiation of the Statement Amount Through Supporting Internal Records

The auditor should make all possible use of the client's supporting records and other internal data as a means of establishing the accuracy and propriety of the recorded figure for receivables. Various procedures can be employed in achieving this objective.

Trial Balance of Subsidiary Ledgers. Most of the auditor's verification work relates to the individual accounts receivable, and the auditor must be certain that the balance sheet figure represents the total of these individual accounts. A trial balance of the individual accounts accomplishes this purpose, and when relatively few accounts are involved, the auditor often includes the trial balance in his working papers, as is illustrated in schedule B-1 at the close of this chapter. The trial balance is usually prepared on a sheet of twelve- or fourteen-column paper, since the same schedule can also be used for other purposes. If an employee of the client prepares the trial balance to reduce the audit time and expense, which is a frequent and desirable practice, the auditor should trace each name, address, and amount to its appropriate ledger page and should prove the footing of the trial balance in order to verify the accuracy of the schedule. Tick marks, explained by an accompanying legend, should be used to show what work has been performed, and of course the total of the receivables trial balance should be cross-referenced to the grouping sheet to show that the amount is in agreement with the trial balance of the general ledger.

When a large number of accounts is involved the auditor's trial balance of the receivables will usually take the form of an adding machine tape, which should be attached to a sheet of working paper and properly identified. If internal control is extremely good, the auditor may limit his examination to a test of a trial balance tape prepared by the client. Such a test might be set up to include all the large accounts with balances in excess of a stated amount and a certain percentage of the accounts with smaller balances. The testing should be from the trial balance to the ledger sheets, since the purpose of the test is to prove that all amounts shown on the trial balance are represented by actual accounts in the ledger. The auditor is thus protected against an attempt to overstate receivables by the insertion of fictitious amounts in the trial balance. The footing of the client's trial balance must also, of course, be proved.

In very large businesses, particularly in the retail field, receivables may be so numerous that many subsidiary ledgers may be maintained, each with its own control. Under such circumstances, particularly since internal control is likely to be good, the auditor will usually limit his trial balance and other work to only a few selected ledgers, with different ledgers selected each year. In addition to proving trial balances of these ledgers against their respective controls, the total of all the individual controls should be balanced with the master and general ledger control accounts.

Whenever the subsidiary ledger accounts fail to balance with the control account, the auditor should always refer the matter to the client. Locating the difference is a clerical matter, and the auditor should not do the work unless he is specifically authorized to do so and the client understands that the audit fee will be increased accordingly. Should the receivables ledger be out of balance in a situation where internal control is weak, the auditor should be alert to the possibility that fraud may have occurred, particularly if the control account exceeds the total of the individual receivables.

Sales Cut-off. Accounts receivable should reflect all sales transactions occurring up to the balance sheet date, but no transactions completed after the balance sheet date should be included. Manipulation of the sales cut-off* is a convenient method of altering the financial statements of a concern, and unintentional errors in the cut-off may very easily occur. For these reasons the auditor should always make a careful examination of the cut-off.

The usual procedure is to select representative sales transactions

* The dividing point between sales entries relating to different accounting periods.

recorded in the last few days of the current fiscal period and the first few days of the following period and trace these sales to shipping department records to determine that the goods were shipped in the same period in which the sale was recorded. To make the examination more conclusive, additional tests may be made with the process reversed, tracing selected shipments to the related entries in the records. The number of days before and after the balance sheet date to be tested and the number of transactions to be selected from these days will depend on the adequacy of the client's internal control. In making an initial examination, the sales cut-off at the beginning of the year must be tested in a similar manner.

The cut-off of inventory and cost of sales must also be verified, but this matter is more fully discussed in the chapter on inventories.

Verification of Control Account Entries. To further establish the validity of the balance of the accounts receivable control account, entries to the control account should be verified. Entries for sales should be traced to corresponding totals in the sales journal, and entries for cash collections should be traced to the cash receipts book. If internal control is good, one month's entries may constitute an adequate test, but if internal control is weak additional months' entries should be verified. In addition, some verification of entries in the source records may be warranted, as follows. Footings of the sales and cash receipts books may be proved, and entries may be tested to supporting documents, such as sales invoices with shipping notices attached and customers' remittance advices. Also, tests may be made of postings to customers' accounts. Careful description of all such work which has been done and the auditor's findings should appear in the working papers.

Entries in the control account not representing sales or cash collections should be verified with particular care, since they are most susceptible to manipulations concealing theft of funds or past errors. These entries will ordinarily represent credits for returns and allowances and for the write-off of uncollectible accounts. Supporting data to these entries should be examined to determine whether all normal procedures have been carried out and whether the entries appear proper. Such documents as receiving memos for returned goods, and authorization slips, properly approved, for allowances and uncollectible account write-offs should always be carefully inspected. Files of correspondence with customers and collection agencies represent added evidence that may be consulted to determine that credits writing off uncollectible accounts are valid.

Establishment of the Validity of the Receivables

As was indicated previously, only in recent years have generally accepted auditing standards encompassed the problem of determining the validity of receivables. The auditor's objective with respect to validity is to satisfy himself that the client's receivables represent bona fide obligations of existing companies. The usual manner of achieving this objective is through correspondence with concerns and individuals who are shown as owing money to the client.

Confirmation Procedures. The technique of ascertaining the validity of receivables through correspondence with the debtors is known as confirming, or circularizing the accounts. Accounts may be confirmed on either a positive or a negative basis. A positive confirmation requests the customer to reply stating whether or not the amount shown as owing to the client is correct. A negative confirmation requests a reply only if the amount shown is not correct. In either case the request should come from the client since no relationship exists between the auditor and the debtor.

The positive confirmation request is usually in the form of a letter such as the one found on page 117; a possible answer to the letter is included.

A negative confirmation request may also be made in letter form, but frequently it will be made in the form of a sticker or rubber stamp placed on a copy of the monthly statement which is regularly sent to each customer. Such a request is usually made in the following form:

> Please notify our auditors at the address given below if this statement is not correct.
>
> Black and Decker, Certified Public Accountants
> 234 Baltimore
> Kansas City, Missouri
>
> Should a discrepancy exist, any information you can furnish concerning the discrepancy will be greatly appreciated. Please use the enclosed business reply envelope in replying.

Confirmation requests should be mailed in envelopes bearing the auditor's return address so that any which cannot be delivered will be returned to the auditor. The return envelope to be used by customers in replying should similarly bear the auditor's address.

The requests will usually be prepared by employees of the client, using a duplicated form and filling in name, address, and amount if the confirmation is in letter form. The customer's name, address, and amount due on each request should be verified against the ap-

MACHINE PRODUCTS CO.
WICHITA, KANSAS

December 12, 19__

Sampson and Co.
234 Erie Street
Chicago, Illinois

Gentlemen:

In connection with the regular independent examination of our financial statements now being made by Black and Decker, Certified Public Accountants, please confirm to them the amount of your indebtedness to us at November 30, 19__. The amount of this indebtedness as shown by our records is indicated below in the space provided for your reply.

Please indicate whether the stated amount is correct. If a difference is reported, please give our auditors any information which might aid them in reconciling the difference.

Your reply should be made directly to Black and Decker, and a stamped, addressed envelope is enclosed for your convenience.

Very truly yours,

MACHINE PRODUCTS CO.

H. A. Onsgard

H. A. Onsgard,
Treasurer

Black and Decker:

The amount of $1,864.32 representing our indebtedness as shown by the records of Machine Products Co. at November 30, 19__ is correct with the following exceptions (if any): Our records show $1,265.29 The difference appears to be a payment which we made on November 28, 19-.

Signed Sampson & Co.

By D A Verbeck

propriate ledger sheet by the auditor to avoid errors, whether or not intentional. In addition, each request should be compared with the verified trial balance in the auditor's work papers in order to determine that no accounts have been omitted. If the circularization is on a test basis, the work papers should show which accounts have

been selected. After the confirmation requests have been verified they must remain under the auditor's control until they are placed in a U.S. mail depository. Failure to follow this precaution would give employees an opportunity to alter or remove confirmations pertaining to altered or fictitious accounts. For similar precautionary reasons, the requests should not be mailed through the client's mail department, but should be placed directly in the U.S. mail.

The working papers should be noted to show all accounts on which replies have been received to positive confirmation requests. The letters should be kept in the audit file, and a summary of the confirmation results prepared as illustrated in schedule B-1. Replies which show differences should be carefully investigated, and the explanation for any difference noted on the reply. The need for great care in investigating differences is indicated by the fact that each such difference is a potential clue to a defalcation or misstatement of the accounts until it is otherwise explained.

Replies suggesting that a charge has been made but no goods purchased, that too much has been charged, or that credit has not been given for a payment which has been made are always dangerous, although investigation will usually show that an error was made in figuring an invoice, that a debit or credit was posted to the wrong account, or that the remittance was in transit. Any undue delay in entering the credit for a collection on account should always suggest the possibility of lapping, a form of manipulation in which a remittance from customer A is appropriated, and then a later remittance from customer B is used to credit the account of A, a remittance from C is used to credit B, and so on.

If a client's internal control is especially good and no material differences are reported, the differences may be turned over to one of the client's employees for investigation, with a report to be made back to the auditor. The selected employee should obviously have no responsibility for receivables or the handling of cash, and a member of the internal auditing staff will usually represent a good choice.

The preceding comments concerning the confirmation of receivables should suggest the great value of this procedure. In addition to providing additional information concerning the effectiveness of the client's internal control, confirmation may reveal fictitious receivables and related fraud, errors or manipulation of the sales cut-off, consignment shipments charged as receivables, amounts which are in dispute, and freight allowances to be granted customers paying the freight on sales made f.o.b. plant.

Decisions Relating to Confirmation Procedures. There are many

points in the confirmation process where decisions must be made. These decisions should be made at the senior level or higher, and must reflect generally accepted auditing standards. The first necessary decision will be whether to confirm all accounts or only part of the accounts on a test basis. If a test is considered adequate, the extent of the test must be determined, as well as the basis for selecting the accounts to be tested. In any case, of course, the auditor must determine whether positive confirmations, negative confirmations, or both will be used.

Factors suggesting the need for extensive circularization, usually on a positive basis, would be weak internal control, indication that many amounts are in dispute, suspicion that fraud or numerous bookkeeping errors exist, or the existence of accounts with balances which are large, relative to total receivables. On the other hand, if internal control is good and there is a large number of uniformly small accounts, negative confirmation of only a small proportion of the accounts may be adequate. Large utilities, for example, are likely to have good internal control and a large number of uniformly small accounts in their receivables from residential customers. In such instances negative confirmation of only 1 or 2 per cent of the accounts may be adequate. The purpose of such a circularization is not to directly prove the validity of the accounts, but to prove the effectiveness of the internal control measures, which would in turn indicate the validity of the accounts.

If there are a few large accounts along with a great number of small accounts, both positive and negative confirmations may be employed. In such a case the audit program might contain the instruction, "Confirm on a positive basis all accounts with balances of $1,000 or more, and confirm on a negative basis 15 per cent of all accounts with balances under $1,000." The selection of larger accounts for confirmation gives the auditor a maximum of information with a minimum expenditure of time and gives relatively good assurance that the receivables are not materially misstated. The smaller accounts should not be ignored, however, for the auditor is also interested in the over-all accuracy of the accounting. Confirmation results should be summarized for review by the manager or partner, in some fashion similar to the illustration on schedule B-1.

When positive confirmation requests are used, the auditor must watch to see that replies are received covering an adequate percentage of the dollar amount of the accounts. Particular note should be made that replies are received on any accounts which are exceptionally large or otherwise unusual. If the response is not adequate, sec-

ond requests carrying an appropriate notation to that effect should be mailed. In some instances third requests, telegrams, or registered letters may be warranted.

Alternative Procedures. Occasionally no reply can be obtained on confirmation requests to certain major accounts. For instance, some companies and government agencies will not confirm balances as a matter of policy because their accounting records are so widespread that an undue amount of time would be required to answer the many requests which are received. In addition, there would be no assurance that a reply would cover all open items. When these conditions are known to exist, the auditor should not send a negative request and accept the absence of a reply as evidence of the validity of the account.

If no reply can be secured from a major confirmation request, or if confirmation is not practicable or reasonable for some other reason, alternative procedures may be employed to determine the validity of the accounts. Reference to evidence of subsequent payment of an account ordinarily constitutes the best indication of the validity of the account. The best form of evidence is the customer's remittance advice which accompanied the payment. This document will have originated outside of the client's organization, and in addition will specify the exact items being paid, so that there is no chance of accepting as evidence a remittance which actually pertains to a charge made after the confirmation date. Other forms of evidence relating to the payment of the account, arranged in descending order of reliability, would be the check sent in by the customer, an authenticated bank deposit ticket listing a deposited check for the amount in question, entry of the remittance in the cash receipts book, and a credit posted to the customer's account. In a few special cases, the auditor may control all incoming mail and inspect all remittances received after the balance sheet date as evidence of the validity of the receivables at the balance sheet date.

Should the customer be slow in paying his account, the auditor may refer to other evidence indicating that a valid receivable exists. Such evidence would include the shipping department's notice of shipment, accompanied possibly by a receipted copy of the bill of lading, the customer's purchase order, and any correspondence referring to the shipment of the goods. It is also helpful to know that the customer indicated by the records is actually an existing business organization. Assurance of this fact can be obtained by reference to the *Dun and Bradstreet Reference Book,* a business or city directory, or a credit report if one is on file.

Determination of the Collectibility of the Receivables

The reader should be careful to recognize that the confirmation of a receivable does not give any proof that the account will be collected. The customer's acknowledgment of his indebtedness is no indication of ability to pay. Therefore the auditor must employ other procedures in order to determine the collectibility of the receivables. The problem of collectibility, of course, relates primarily to the adequacy of the provision for doubtful accounts, since this provision should be sufficient to reduce receivables to an amount not in excess of the expected collections.

Aging. The best indication of the collectibility of a client's receivables can usually be gained by aging the accounts. As a general rule the longer an account has been unpaid the less likelihood there is that the account will be paid. Open balances may be aged either according to the month of sale or according to whether the balance is current or past due, with separate columns to show how long the amounts are past due.

A choice must also be made as to whether to age the accounts on a first-in, first-out basis or on a specific invoice basis. The difference between these two bases and the results obtained may be illustrated readily by the following simple example. The account which is shown is to be aged as of December 31.

Date	*Explanation*	*Debit*	*Credit*	*Balance*
Sept. 4	Inv. #2418	$864.15		$ 864.15
Sept. 7	Inv. #2463	152.97		1,017.12
Sept. 10	Cash		$864.15	152.97
Nov. 26	Inv. #2738	201.64		354.61
Dec. 2	Inv. #2773	286.51		641.12
Dec. 6	Cash		201.64	439.48

Aging this account by month of sale on a first-in, first-out basis, $286.51 would of course be classified as a December sale, leaving the remainder of the balance of $439.48 to be classified in some other month. The remainder is $152.97, and since it does not exceed the November sale of $201.64, the entire $152.97 would be classified "November." However, when payments are matched with charges on a specific invoice basis, the balance is shown to be made up of the December charge of $286.51 and the September charge of $152.97. The customer has for some reason failed to pay the September invoice for $152.97, and the period of time which has elapsed

since the transaction occurred suggests considerable doubt that the amount will be collected. Thus aging the amount as "September" on a specific invoice basis is much more realistic and informative than aging the amount as "November" under the first-in, first-out basis.

Although the above illustration would suggest that the specific invoice basis should always be used, the alternative method is actually used quite frequently, primarily because it is easier to apply. The illustration does not indicate any particular difficulty in applying the specific invoice basis, but relatively few entries are involved. When numerous transactions occur each month the matching of debits and credits becomes rather a lengthy process unless the client has keyed debits and credits as remittances have been received.

On the other hand, if the individual receivables are small and relatively homogeneous, the quicker first-in, first-out method, even though less accurate and reliable, will produce a sufficiently useful picture of the receivables to permit a reasonable determination of the adequacy of the provision for doubtful accounts. As a general rule, however, large accounts which might have a substantial effect on the over-all picture should be aged on a specific invoice basis. Installment accounts are usually aged according to the month in which the most recent installment payment was received.

There is obviously a possibility for a considerable saving in audit time if the accounts have already been aged by the client or if the client prepares an aging schedule for the auditor. If the client's internal control is good and a large number of accounts is involved, the auditor may accept the client's aging after making sufficient accuracy and reliability tests of the client's analysis. Although the tests should cover a few accounts which are shown as delinquent in order to determine that they have been properly aged, the major work should relate to accounts which are classified as current. The client has already confessed to the existence of those accounts which are shown as delinquent, so the auditor's main concern is whether the client has attempted to create an unduly good picture of the receivables by classifying delinquent accounts in the current column.

Interpreting the Aging Results. Once the auditor has the complete aging analysis before him, he must determine whether the provision for doubtful accounts appears adequate in the light of that analysis. In some instances, particularly for retail department stores, a schedule of estimated losses for each age group of an aging analysis may be developed from past experience. Such a schedule would appear as follows:

Age Group	*Estimated Percentage of Loss*
Current	0
Past due	
1 month	10
2 months	20
3 months	30
4 months	40
5 months or more	50

Since differing conditions cause different results, no single schedule can be used for all clients, even if they are in the same field of business. Whenever a small number of accounts with large balances is present, individual consideration of each past due amount is practically a necessity. Any useful information observed at the time the accounts are aged should be noted in a remarks column of the schedule. Notations of collections on past due amounts received between the aging date and the date the work is done represent particularly useful information.

Later, the senior accountant will go over past due accounts with the credit manager, and using the remarks on the aging schedule and information furnished by the credit manager (verified by reference to credit reports, correspondence, or other data when necessary), prepare an estimate of possible losses from doubtful accounts. If this estimate exceeds the provision made in the records, the auditor should request the client to increase the recorded provision. Should the client refuse to make the requested adjustment and the amount involved be material, the auditor should qualify his opinion to the effect that the recorded provision for doubtful accounts is inadequate. Needless to say, an excessive loss provision is just as undesirable as one that is insufficient.

As a rough check of the auditor's aging analysis, and to show any trends that may be developing, the turnover of accounts receivable or number of days' sales outstanding should be computed and compared with figures for previous years.

Other Procedures Related to Collectibility. The auditor should analyze all changes in the account Provision for Losses on Doubtful Accounts. Charges to this account for write-offs of uncollectible accounts should be cross-referenced to the schedule showing the analysis of the accounts receivable control account. The calculation of the current year's provision for losses is also reviewed. The dollar amount of the sales or receivables used as the base in this calculation should be verified, the percentage loss factor applied to the base should be unchanged from the previous year unless warranted by

circumstances, and the product of the base times the rate should be verified. Past bad debt losses should also be reviewed to determine whether the loss factor being used is adequate based on past experience. The permanent files should be brought up to date each year to show the annual losses and provision for losses. Schedule B-2, at the close of this chapter, is an example of the working paper analysis of the provision for losses to be included in the current working paper file.

An intelligent appraisal of the adequacy of the current year's loss provision must be based in part on a knowledge of the client's credit and collection policies and any changes which have occurred in these policies. The lengthening of credit terms, the reduction of minimum credit standards for accepting new accounts or increasing high credit limits, a change in collection procedures, or laxness in following up on delinquent accounts may all have repercussions on the client's bad debt losses. Needless to say, the auditor should be aware of these possibilities and, if necessary, recommend changes in the percentage loss factor used in providing for losses. Discussion with the credit manager and follow-up clerks and a review of a limited sample of new account applications which have been approved are means of securing the desired information.

The auditor must always be on guard to note whether the posting of credits for returns or allowances may have been delayed either unintentionally, or for the purpose of improving operating results and the current financial position. In addition to inquiry made of the proper persons about such a possibility, the auditor should review the returns and allowances posted in the period following the balance sheet date. An abnormal amount would indicate a possible carryover from the year under review, and supporting papers covering individual returns and allowances should be examined on a test basis to determine whether the cut-off at the end of the year was made cleanly.

Timing of the Audit Work

Ideally, the audit procedures discussed above would be carried out after the close of the client's fiscal period, since all of the records would then be complete and the actual balance sheet figures could be verified. In practice, however, the ideal is not satisfactory for two reasons. First, so many concerns have a December 31 fiscal year that the public accounting profession would be unable to perform all the required work within a reasonable period of time after December 31. Second, clients usually want their reports as soon after the close of

the year as possible, thus further crowding the work if it were all to be done after December 31.

To meet this situation, public accountants have been doing an increasing amount of the necessary auditing work on a preliminary basis. In some instances involving large clients with excellent systems of internal control, more than 50 per cent of the audit time may be expended prior to the balance sheet date, and it is not unusual to begin working on the audit for the following year shortly after the completion of the audit for the current year.

With respect to the examination of receivables, much of the work can be done on a preliminary basis. Quite obviously the review of the system of internal control can be made before the end of the year, although if the lapse of time between the completion of the review and the close of the year is relatively great the auditor should ascertain that no changes have occurred during the intervening period.

If the client's internal control is good, almost all the receivables work can be done before the close of the year. If a large number of relatively small and uniform accounts is involved the work can be done as much as three months before the close of the year, and in some instances even earlier than that.

Analysis and verification of control account entries, trial balance work, and confirmation and aging procedures can all be carried out on a preliminary basis. If the results of this work are all favorable, good internal control can be relied upon to carry the same conditions forward to the balance sheet date. As a check, however, intervening entries in the control account and any decided change in the total amount of receivables should be carefully investigated. If the review of the year-end trial balance reveals the existence of any particularly large accounts, these should be reviewed to be certain the balances are current and have not changed greatly since the date of the preliminary work. If any of these accounts have increased substantially or if any large new accounts are present, confirmation should be requested as of the balance sheet date to establish the validity of the balances.

The verification of the sales cut-off must, of course, be made at the end of the year.

NOTES RECEIVABLE

Although most sales are completed on an open account basis, in some fields trade acceptances are common, and installment sales of

equipment are usually covered by notes. In addition, of course, financial institutions usually require notes to be signed on loans or advances. The objectives and procedures presented in connection with the examination of accounts receivable are generally applicable to notes receivable as well, but certain additional procedures are necessary when notes receivable are present.

Inspection of Notes Receivable

Since a note may be negotiated to a third party without notice to the maker, confirmation of the recorded receivable with the maker of the note is not conclusive evidence that the payee of the note still has a valid asset. To satisfy himself that notes receivable have not been sold, discounted, or pledged, the auditor should make a physical inspection of the notes. This inspection, or "count" of the notes as it is usually called, should include a comparison of the following information appearing on the notes with the client's note register, ledger sheets, or other record of the notes: name of payee, names of endorsers (if any), name of maker, principal amount of the note, date the note was made, maturity date, and interest rate (if any). The count should be made as of the close of business on the last day of the fiscal period, and control should be maintained over the notes until all other liquid assets, such as cash or securities, have been counted to preclude conversion of any of the notes into cash and use of such cash to cover up any shortage which might exist.

Endorsements should be carefully investigated at the time of the count inasmuch as they may be a clue to a temporary conversion of a note. The note might have been pledged or discounted with the proceeds used to the personal advantage of some employee. Subsequent re-acquisition of the note would, of course, be necessary to restore it to its proper place at the time of the auditor's count. Due dates should also be watched since notes due more than one year after the balance sheet date may have to be placed in a noncurrent category.

Any notes owned by the client but not on hand at the time of the count should be confirmed with the present holders as well as with the maker. Notes not on hand should be out for a good reason, such as collection, or collateral for a loan. If for the latter reason, notation to that effect is required in the balance sheet.

Notes Receivable Discounted

Notes receivable records should be reviewed to determine that any notes shown by the records as disposed of during the year were col-

lected at maturity and not discounted. If any of the notes were discounted, and are still unpaid at the balance sheet date, the balance sheet should be footnoted for the resulting contingent liability. Confirmation requests to banks (discussed in the following chapter) are another means of disclosing the existence of any contingent liability.

Collateral

If notes are secured by collateral, the debtor should be asked to confirm the description and amount of collateral which was pledged. The collateral should be examined to ascertain that it has been properly accounted for and not merged with the client's assets or otherwise converted. Lastly, the value of the collateral should be ascertained in order to determine whether the security is ample.

Interest

If the client normally follows the accrual basis in accounting for interest on notes receivable, the auditor should satisfy himself that interest has been properly accrued at the balance sheet date. In addition, sufficient tests should be made to satisfy the auditor that all interest income earned during the year has been accounted for.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

The Committee on Auditing Procedure of the American Institute of Accountants has published a series of case studies dealing with auditing procedures. The foreword to each of the studies contains the following comments:

> . . . auditing procedures are the means by which the independent auditor attains or complies with generally accepted auditing standards applicable to field work. Auditing procedures are so numerous and should be varied so greatly to meet particular circumstances that it is not possible to make an enumeration of procedures which would be applicable generally, or even widely. It is natural that this is the case because if the examination of accounts and financial statements could be reduced to a stereotyped check list of instructions, there would be no need for a public accounting profession. Experienced professional judgment determines the scope and nature of audit procedures to be followed in each individual engagement.
>
> It is the view of the Committee on Auditing Procedure that the

most satisfactory method of presenting auditing procedures is the preparation of a series of case studies illustrating the auditing procedures adopted and applied in actual examinations.

The author agrees wholeheartedly with the committee's contentions. Accordingly, at the conclusion of each of Chapters 6 through 15, applicable portions of three of the case studies published by the committee have been abstracted to illustrate the application of auditing procedures in specific situations. The three case studies chosen represent a broad cross-section of conditions which the auditor might encounter. The case dealing with the steel fabricating company (the committee's Case Study Number 8) describes the audit of a relatively small business which has practically no internal control, and yet the business is sufficiently complex to present a number of auditing problems. The case relating to the audit of a loading and hauling equipment manufacturer (Case Study Number 1) covers what might be classed as a medium-sized business, and although a considerable degree of internal control is evident, the control is far from complete. The department store case (Case Study Number 3), on the other hand, deals with a relatively large business with very good internal control. Although the department store has no internal auditor, the regular system of internal check has been brought to a satisfactory level, largely as a result of suggestions made by the independent auditor. The size of the business, of course, makes it possible for management to secure the economic benefits attendant with the specialization of labor, and this specialization, in turn, is largely responsible for the excellent internal check.

The student, in utilizing this case material to broaden his understanding of generally accepted auditing standards, should note especially the manner in which the selection of auditing procedures and the extent to which they are applied have been influenced in each instance by such considerations as materiality and relative risk—in addition to the vital factor of internal control. Important elements of the internal control in each of the companies are presented in some detail.

Other case studies published by the Committee on Auditing Procedure are:

No. 2. A Newspaper Publisher.
4. A Public Utility.
5. A Corn Processing Company.
6. A Management Investment Company of the Open-end Type.
7. A Grain Company.
8. A Small Restaurant.
9. A Wholesale Distributor of Newspapers and Magazines.

Case A (Steel Fabricator)

Sales	$800,000
Receivables (150 accounts)	120,000
Total current assets	453,000
Total assets	565,000
Net income	53,000

The bookkeeper posts the ledger, makes up bank deposits, and writes checks for disbursements. The assistant secretary, who is credit manager, opens all mail and matches checks received from customers with open sales invoices. These matched invoices constitute the detailed record of cash received, and only a daily total of cash received is entered in the cash book. The credit manager approves all write-offs of bad debts. At the end of each quarter the public accountant prepares a standard journal entry providing for the estimated losses on receivables, based on a fixed percentage of sales.

In making the year-end audit examination the auditor verified the sales cut-off by listing all items packed for shipment on December 31 and tracing those items to sales invoices. If the invoices were dated and entered in the following year, the transactions were accepted as being properly recorded. An aged trial balance of all receivables prepared by the bookkeeper was verified against the accounts receivable ledger. Collections on the listed accounts made between the balance sheet date and the date of the auditor's verification work were noted on the aging schedule. The total balances remaining uncollected were then compared with the total of the auditor's tape listing of the open sales invoices dated December 31 or prior in the credit manager's custody. Accounts over ninety days old were reviewed with the credit manager as to their collectibility, and the adequacy of the provision for doubtful accounts was considered in the light of this discussion. Credit files were reviewed to determine the validity of all bad debts charged off.

Positive confirmation requests were mailed on all open accounts. Replies were received covering about 75 per cent of the total dollar balances, and no second requests were sent.

Case B (Loading and Hauling Equipment Manufacturer)

Sales	$4,500,000
Receivables	390,000
Total current assets	2,491,000
Total assets	3,438,000
Net income	370,000

The detailed customers' ledger is machine posted and the bookkeeper has no access to incoming mail, does not bill customers, and does not mail customers' monthly statements. Complaints or other communications from customers are routed directly from the mail desk to the treasurer.

Past due balances are reported at the end of each month to the treasurer. Credits to accounts for returns, discounts, or allowances are controlled by the treasurer and controller. Bad debt chargeoffs are approved by the president.

The auditor's verification of the sales cut-off consisted of tracing all sales recorded in the last week of December to shipping documents to ascertain that the goods had been shipped in December. All entries to the accounts receivable control were scrutinized, and unusual entries were substantiated by reference to supporting details, including all entries writing off uncollectible accounts.

A copy of the December 31 trial balance of receivables prepared by the client was compared with the balances shown by the detailed ledger of receivables. The footing of the trial balance was proved and the total compared with the balance of the accounts receivable control. Copies of the customers' statements for December were compared with ledger sheets as to name, address, and balance and separated from the ledger sheets. The statements were then mailed by the auditor, accompanied by positive confirmation requests on all accounts of $1,000 or more, representing 89 per cent of the total receivables, and negative confirmation requests on all other accounts. Second requests were mailed after two weeks on all accounts for which replies had not been received to the original positive confirmation requests. Replies on positive confirmation requests covered 75 per cent of the trade receivables.

As the trial balance was compared with the detailed ledger accounts, credits posted after December 31 were noted on the trial balance. Delinquent accounts not collected during this period were discussed with the credit manager as a basis for ascertaining the adequacy of the reserve for doubtful accounts. Non-cash credits recorded in January were reviewed to determine if significant amounts were involved which related to sales of the year under review.

Accounts receivable amounting to $6,000 due from officers were confirmed by the officers involved, and if large repayments were received in December, January transactions were reviewed to determine whether checks had been issued to those officers, restoring the original amounts due. Amounts due from officers were separately classified on the balance sheet. Advance payments received from customers were reclassified as accounts payable, in the amount of $28,000.

Case C (Department Store)

Sales	$12,000,000
30-day charge accounts (35,000 accounts)	500,000
Total current assets	4,300,000
Total assets	5,600,000
Net income	750,000

Charge accounts are maintained by machine posting on a cycle billing plan involving twenty cycles. Control accounts for the individual cycles are posted daily. On the specified cycle date the accounts in an individual cycle are posted, and the sales checks, statements, and other documents are mailed to the customers after the documents are microfilmed. A trial balance of the accounts in a cycle is obtained as a by-product of the posting operation. This trial balance is then compared with the cycle control. Differences not in excess of about $200 are written off to profit and loss; larger differences are investigated.

Sales and sales returns and allowances are pre-listed by the sales audit department before the documents are released to the accounts receivable section. Duplicate receipts, prepared by cashiers for cash received on the accounts, are also pre-listed by the sales audit department.

At the end of each month the balances of the individual cycle controls are totaled and compared with the general ledger controlling account for receivables. The department store's fiscal year closes on January 31.

The auditor reviewed the system of internal control in August. The review covered tests, or inquiries, to ascertain that the segregation of duties was in full effect, that general ledger entries were supported by detailed records prepared by the appropriate departments, and that bad debt write-offs and collections were being handled properly. Steps were also taken to determine that cycle controls were compared with the totals of the detailed accounts at the cycle billing dates, and adjustment made for differences. The amount of such differences was reviewed for each month to ascertain whether the differences were within reasonable limits. For one cycle, selected at random, the photographic film was reviewed and for one hundred consecutive accounts, all non-cash credits were listed and traced to supporting details to see that approvals were given by officials not connected with the accounts receivable department.

Negative confirmation requests were mailed to approximately 7½ per cent of the charge accounts. For cycles billed during the period October 15 to November 15, accounts were selected for confirmation as follows:

One complete cycle.
One hundred accounts in consecutive order from each of five other cycles not confirmed in the preceding year.
One hundred accounts in consecutive order from the cycle confirmed in its entirety in the previous year.

Customers' statements on accounts to be confirmed were placed under the auditor's control when the client had completed the regular microfilming process. The statements of the entire cycle selected for confirmation were compared with corresponding ledger balances, and the trial

balance of those accounts was proved and compared with the cycle control. Confirmation of the accounts was requested by means of gummed stickers attached to the statements. The attaching of these stickers, insertion of the statements into the auditor's return-address envelopes, and sealing and stamping the envelopes on a postage meter were all done by employees of the client under the auditor's supervision. Control was maintained by a count of the completed envelopes before they were mailed by the auditor.

Undelivered requests returned to the auditor were listed, and the credit department was requested to furnish better addresses if available. New requests were then mailed. If no better address was available, sales checks, credit applications, and correspondence in support of each account were examined to establish the validity of the account, and then the account was turned over to the collection department. Replies disclosing differences were listed and turned over to the adjustment department for investigation, with a report on the investigation to be made to the auditor and reviewed by him.

Aging of the accounts by the client was made on a test basis, covering two complete cycles and all accounts over $250 in all other cycles. The entire balance of any delinquent account was aged according to when the account became overdue. The auditor footed and crossfooted the client's aging schedules, and by reference to trial balance tapes ascertained that all accounts over $250 had been aged. For the two cycles aged in detail, footings of the trial balance tapes were proved, and the totals compared with the cycle control balances. The auditor then tested the client's aging by verifying the aging of 20 per cent of the accounts over $250 and 10 per cent of the remaining accounts which were aged. If many mistakes in aging were found, the controller was to be requested to have the entire aging rechecked. In such a case an additional 10 per cent of the aged accounts were to be tested by the auditor. Percentages developed from the test aging were then applied to the entire amount of the charge accounts. Requirements for the reserve for doubtful accounts were computed from these final figures, and the auditor verified the rates and computations used. As a further indication of the collectibility of the accounts, non-cash credits to the receivables posted in February were reviewed for unusual amounts.

After the close of the fiscal year at January 31, the auditor was handed a schedule prepared by the client showing the balance of each cycle control at the last billing date before January 31, the transactions affecting each cycle from its billing date to January 31, and the balance at January 31. This schedule was footed and crossfooted by the auditor, and the final total at January 31 compared with the general ledger control account. For 20 per cent of the cycle control balances as of the billing dates, the figures

were traced to trial balance tape totals, and the footing of 5 per cent of the trial balances was proved. Entries to cycle controls during the period from the last billing to January 31 were reviewed for unusual items or amounts. Differences disclosed at the first billing of each cycle following January 31 were listed in order to determine whether they were so large as to require adjustment at January 31.

As an over-all indication of the reliability of the final balance of charge accounts receivable, the auditor reviewed general ledger control account entries for the entire year for any unusual fluctuations in sales, sales returns, or cash receipts which might suggest a possible misstatement of the final balance.

Machine Products Co.
Accounts Receivable - Summary

J.A.S. 1/8/57

	Index	12/31/56 Final 12/31/56	Per Books 12/31/56	Adjustments Dr. (Cr.)	Final 12/31/56
A/C Rec. - Customers	B-1	678 406 28	691 604 18	(a) 14976 23	706 580 41
Provision for doubtful A/Cs	B-2	(24 108 91)	(26 964 32)		(26 964 32)
Miscellaneous receivables	B-3	6 238 16	7 418 21		7 418 21
Accrued interest receivable	N	312 50	395 83		395 83

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J.A.S
12/10/5

Machine Products Co.
Accounts Receivable - Trial Balance, Aging, & Confirmation
12/31/56

Customer Name	Address		Balance 11/30/56	Credit Balances
Brought forward			680 206 91	15 311 88
			764 02 n	
U.S. Air Force	Forbes Field, Topeka, Kas.	P	22 651 18 n	
			516 82 n	
Walker Supply Co.	206 W. Orange, Chicago, Ill.	(P)	1 305 60 n	
			(76 51) n	76 51
Yates & Sons	1329 Monroe, Lexington, Mo.	N	301 89 n	
Young Machinery Co.	601 W. Fourth, Emporia, Kas.	(P)	2 016 37 n	
			110 13 n	
	Totals		707 796 41 V F	15 388 39 F
	Balances 12/31/56 per client's trial balance		691 604 18 to B	14 976 33 Reclassify J.E. (10)

All of the above balances represent trade accounts due from regular customers.

Balance 11/30/56, as above	707 796 41	
December billings, per sales journal	1 063 406 81	Per 10
	1 771 203 22	
December cash receipts per cash receipts book	1 078 835 22	
Bad debt To Page Mercy Co. (B-2)	763 82	1 079 599 04
Receivables balance 12/31/56		691 604 18
		to B

Client's trial balance as of 12/31/56 was compared with the control account balance and major balances were reviewed. No material changes were noted since 11/30, and no additional confirmations were mailed.

Based on the above analysis and review, the balance at 12/31/56 appears to be fairly stated.

Traced to general ledger
F = Footed and cross-footed
n = Traced to ledger for balance and aging
P = Positive confirmation requested
(P) = Reply received
N = Negative confirmation sent

Billed in November	October	August September	Prior to August	Estimated Requirement for Provision for Loss	
628461 39	43206 65	14197 68	9653 07	11306 27	
764 02 CR					
15601 29 CR	7049 89 CR				Pd $7049.89 12/4
516 82					Pd 13,476.23 1/8/59
1168 39		137 21			
253 49			48 40	48 40	Old item in dispute
1963 25 CR		53 12 CR			
110 13					
648838 78	50256 54	14388 01	9701 47	11354 67	
F	F	F	F	F	

The above estimated requirement to provide for bad debt losses is based on discussion of old balances with C. R. Wadsworth, Credit Manager, and review of related correspondence files.

All accounts of $1,000 or over were selected for positive confirmation requests, and a negative confirmation request was sent to every fifth account under $1,000.

CONFIRMATION RESULTS

	Dollar Amt	No. of Accts.
Receivables 11/30/58	$ 707796 41	206
Positive confirms sent	497603 82	43
Negative confirms sent	63206 51	32
Total confirms sent	$ 560810 33	75
% of Receivables	79%	36%
Replies on positive conf.	463205 67	38
% of Receivables	65%	18%

Replies to two positive and four negative confirmations showed exceptions but all were satisfactorily cleared. See conf. file.

Ten invoices were selected at random from the sales recorded from 12/28 to 1/5 and traced to shipping records for sales cut-off. No exceptions.

Machine Products Co.
Provision for Doubtful Accounts

12/31/56

J.A.S. 1/12/57

Balance 12/31/55			24,108 91
Provision, 1956			5,725 37 per 30
.05% X 11,450,737.66 (net sales)			
			29,834 28
W/O of losses, 1956			
6/30 Machine Specialties, Inc.		2,106.14 N	
12/31 Page Machinery Co. (Per B-1)		763.82 N	2,869 96
Balance 12/31/56			26,964 32
			to B

N Traced to journal voucher and supporting papers. Both write-offs were approved by the credit manager and controller.

Per permanent file:

Provision of .05% in effect since 1950

Losses —

1953	3,042 63
1954	1,926 51
1955	6,246 18
1956	2,869 96 (above)

Per schedule B-1:

Estimated losses at 11/30/56		11,354 67
A/cs 3-4 months old	14,388 01	
A/cs over 4 months old	9,701 47	
	24,089 48	

In view of the above information, the provision for losses on doubtful accounts appears adequate.

Review Questions

1. Why should the auditor determine which person in the client's organization is responsible for approving non-cash credits to receivables?

2. What duties with respect to receivables should be handled separately under a good system of internal control?

3. "A comprehensive system of internal reporting is an important phase of good internal control." Explain.

4. If a balance sheet includes an amount classified under current assets, which is described simply as "Accounts Receivable," what assumptions should the reader of that statement be warranted in making about that amount?

5. How were generally accepted auditing standards strengthened as a result of the McKesson and Robbins investigation?

6. What are the auditor's objectives in verifying the amount of receivables shown in the balance sheet?

7. When the auditor makes a test comparison of the receivables trial balance and the subsidiary ledger, should selected accounts in the ledger be traced to the trial balance, or vice versa? Explain.

8. What is meant by verification of the sales "cut-off"? Explain the importance of such verification from both a balance sheet and an income point of view.

9. Distinguish between confirmation of accounts receivable balances on a "positive" basis and on a "negative" basis.

10. Under what circumstances is the auditor most likely to use a positive confirmation request? A negative confirmation request?

11. What summary information should always be included in the work papers concerning the confirmation of receivables?

12. If your client refuses to permit you to circularize accounts receivable, what other procedures might be used in lieu of confirmation in order to enable you to form an opinion on the amount of accounts receivable shown in the balance sheet?

13. Distinguish between aging of receivables on a first-in, first-out basis and a specific invoice basis. Which of the two methods will produce the most useful analysis for audit purposes?

14. How does the auditor satisfy himself as to the adequacy of the provision for doubtful accounts?

15. What phases of the examination of receivables can be carried out on a preliminary basis?

16. In what ways do auditing procedures for notes receivable differ from those for accounts receivable?

Questions on Application of Auditing Standards

17. What steps should you take with respect to a confirmation request returned by the post office marked "No such person at this address"? Would you proceed differently if the envelope were marked "Moved—left no forwarding address"? Explain.

18. Department stores often make "Layaway" sales, in which the merchandise selected by a customer is set aside for the customer until the customer completes payment for the merchandise, the receivable and sale being recorded at the time the merchandise is selected by the customer. An audit program carries the instruction to examine the merchandise related to one per cent of the layaway accounts.

(*a*) Why is this procedure included in the audit program?

(*b*) Would you select accounts from the ledger and then inspect the merchandise called for, or would you select merchandise from the storeroom and then trace the information into the ledger? Explain.

19. What significance would you attach to the fact that in the course of testing entries in the subsidiary accounts receivable ledger to source documents, you found several debits and credits for which there is no record in the books of original entry?

20. What information might be obtained in the course of carrying out the following procedure that might have a bearing on the presentation of accounts receivable in the balance sheet? "Compare amounts listed on the trial balance of accounts receivable with the balances shown by the individual accounts in the subsidiary ledger."

21. In connection with your examination of receivables, you raise questions with the credit manager as to his credit and collection policies and procedures. He says that these questions have nothing to do with your audit and he declines to give you any information. How would you explain to him why you need this information?

22. Although both of the following situations should be fully investigated, which would be most likely to arouse suspicion on the part of the auditor? Justify your choice.

(*a*) The accounts receivable trial balance total is greater than the balance of the accounts receivable control.

(*b*) The accounts receivable trial balance total is less than the balance of the accounts receivable control.

23. What significance would you attach to the fact that, in the course of verifying the physical existence of notes receivable, you discover that several of the notes bear the client's endorsement?

24. "Since the validity of a receivable evidenced by a note can be ascertained readily by confirmation, there is no reason to inspect the note itself." Do you agree? Explain.

25. As partner of a public accounting firm, would you be willing to sign an unqualified opinion on a report that contains the following two statements? Explain. "Cash on hand was counted on February 28." "Notes Receivable were counted on March 3, the day the treasurer returned from a week's absence. The treasurer alone possesses the combination to the safe in which the notes are kept."

26. Preliminary work on accounts receivable, performed one month prior to your client's fiscal year closing, consisted of the following procedures:

(*a*) Internal control reviewed and ascertained to be very good.

(*b*) Trial balance verified 100 per cent against subsidiary accounts, footed, and balanced with control.

(*c*) Positive confirmation requests mailed to 250 customers. Replies received from 221 customers were satisfactorily reconciled with the accounts.

These replies represented 42 per cent of the total number of accounts and 81 per cent of the total dollar amount of accounts receivable.

(*d*) All entries to the control account for eleven months traced to books of original entry.

What procedures would you recommend be included in the audit program for year-end work to complete the examination of accounts receivable?

27. If the auditor is making a random comparison of amounts on the trial balance of accounts receivable with the amounts shown in the accounts receivable subsidiary ledger, should he work from the trial balance to the ledger or vice versa? Explain.

Problems

28. You are engaged by the Casualty Insurance Company to investigate a claim which has been filed under a fidelity bond issued by it for loss alleged to have been caused by embezzlement perpetrated by the branch office manager of the insured.

The claim consists of a list of seventy-five names with an amount shown after each one, the total of which amounts to $16,000 and is accompanied by the statement of the insured that these names and amounts represent account receivable balances on the branch books which are the result of fictitious entries by its office manager to cover peculations amounting to $16,000.

The branch manager has absconded. The insured, however, is willing that any or all of the available records of its office be checked.

Upon inquiry at the head office of the insured it was ascertained that the manager had complete charge of all transactions at the branch, which dealt only in one commodity. He reported daily to the main office the quantities received and sold, the details of the charge sales and the amount of cash received, distinguishing on the daily report between cash sales and collections on accounts receivable. All disbursements relating to the branch office were made by check from the main office. The branch office manager made a deposit daily of all receipts in a special bank account from which withdrawals could only be made by the proper officers located at the main office.

It was also found that the daily report showed the quantities on hand at the beginning and end of each day. The balance so shown at the close of each month was checked by a representative of the main office who took an actual inventory of the merchandise on hand. No large inventory shortages had ever occurred.

The representatives of the insurance company, your client, tell you that the branch manager was covered by a fidelity policy to December 31, 1955, in the principal sum of $5,000. On account of increased business this was considered inadequate and on January 1, 1956, an increase of $10,000 was duly made in the coverage, making the limit of liability under the policy $15,000. The defalcation was discovered on April 30, 1956, and the loss reported in the claim of $16,000 was the accumulated loss to the latter date. The extent of the loss was computed by the insured after complete and quite successful circularization of all branch customers and the insurance company is willing that you make judicious use of this circularization so as to save further annoyance to the insured and his customers.

Explain briefly the steps which you would take in the investigation of this

claim for the insurance company and state what results you would expect from each.

(A.I.A.)

29. Following is the account of Creek and Brook, a customer of your client, whose financial statements you are examining as of November 30. In connection with this examination, you are asked on December 8 to do the following:

(*a*) Age the account on a first-in, first-out basis.

(*b*) Age the account on a specific invoice basis.

(*c*) Suggest possible explanations for past due amounts listed for (*b*).

Creek and Brook

Terms: 2/10, n/30

July 1	Balance forward			$3,829.01
5	Inv. 813,	$1,406.18		5,235.19
15	Cash		$1,406.18	3,829.01
23	Inv. 841,	621.75		4,450.76
31	Inv. 860,	416.01		4,866.77
	Cash		3,829.01	1,037.76
Aug. 13	Inv. 874,	534.51		1,572.27
17	Inv. 880,	108.94		1,681.21
20	D.M. 21—Correct Inv. 841	25.16		1,706.37
23	Cash		1,029.44	676.93
25	Inv. 892,	321.65		998.58
	Freight	27.62		1,026.20
27	Cash		108.94	917.26
Sept. 3	Inv. 903,	251.18		1,168.44
10	Cash		534.51	633.93
18	Inv. 918,	634.15		1,268.08
25	Cash		349.27	918.81
Oct. 4	Inv. 1,001,	65.82		984.63
10	Cash		225.94	758.69
14	Inv. 1,012,	491.50		1,250.19
15	C.M. 14		25.24	1,224.95
18	Cash		592.05	632.90
26	Inv. 1,025,	161.35		794.25
Nov. 5	Inv. 1,042,	225.18		1,019.43
7	Inv. 1,049,	42.51		1,061.94
15	Cash		500.00	561.94
Dec. 4	Cash		200.00	361.94

30. The Bryant Department Store has arrangements for customers to pay for purchases over $10.00 on a time-payment plan. The plan calls for a 10 per cent down payment, a carrying charge of 10 per cent on the balance after the down payment, and payments of $5.00 per month on balances up to $100.

An examination of financial statements for the store should include some form of aging analysis of the installment accounts, for purposes of evaluating the store's provision for doubtful accounts.

(*a*) Suggest two different methods of aging such accounts.

(*b*) Apply each of these methods to the following accounts, in an examination of balances at January 31.

(*c*) Based on the results of your aging, which of the following two accounts would you judge to be the better risk from the standpoint of collectibility?

		J. K. Baker		
May 10	Clothing	$63.81		
	Carrying charge	5.74		
	Down payment		$6.38	$63.17
June 13	Cash		5.00	58.17
July 19	Cash		5.00	53.17
Dec. 30	Cash		5.00	48.17
Jan. 20	Cash		5.00	43.17
		A. S. Burton		
June 20	Sporting goods	$86.54		
	Carrying charge	7.79		
	Down payment		$8.65	$85.68
July 20	Cash		5.00	80.68
Aug. 20	Cash		5.00	75.68
Sept. 20	Cash		5.00	70.68
Oct. 20	Cash		5.00	65.68
Nov. 20	Cash		5.00	60.68

31. For each situation summarized below, prepare a summary of accounts receivable circularization results. The summary should reflect results that would be reasonable, adequate to meet generally accepted auditing standards, and should indicate that less than 100 per cent response was obtained on any positive confirmations sent, and that a reasonable number of exceptions was received.

(*a*) Department store.
Good internal control.
10 accounts receivable ledgers, each under separate tray control.
4,954 active accounts.
General ledger control balance, $112,806.52.
Analysis of balances—

$ .01—$ 9.99	821	accounts
10.00— 19.99	1,575	accounts
20.00— 29.99	960	accounts
30.00— 39.99	623	accounts
40.00— 49.99	357	accounts
50.00 and over	618	accounts

(*b*) Grocery wholesaler.
Good internal control.
251 active accounts.
General ledger control balance, $62,308.51.
Analysis of balances—

$ 1—$ 49	45	accounts
50— 99	21	accounts
100— 199	49	accounts
200— 299	75	accounts
300 and over	61	accounts

(*c*) Machine tool manufacturer.
Bookkeeper handles checks, sends statements, and takes monthly trial balance.
238 active accounts.
General ledger control balance, $157,604.93.

Analysis of balances—

$ 0–$249	14 accounts
250– 499	36 accounts
500– 749	105 accounts
750 and over	83 accounts

32. State the procedures you would use in investigating the following exceptions disclosed by your circularization of accounts receivable as of November 30. Cover all possibilities as to what may have occurred.

(*a*) "We have no record of your charge against our account on October 28 in the amount of $314.81."

(*b*) "This balance is now paid." (Date of customer's reply, December 16).

(*c*) "We paid $654.92 by check on November 28."

(*d*) "We have not received credit for $285.62 of goods returned on November 16."

(*e*) "Merchandise defective–awaiting instructions for our next move."

33. The following are the detailed accounts receivable of the Folding Box Company. You begin work on January 10 on an examination of the financial statements for the past year ended December 31. At the balance sheet date, the balance of the accounts receivable control was $5,691.04, and the account for estimated losses on accounts receivable had a credit balance of $134.19. The company realizes a gross margin on sales of about 35 per cent.

The senior accountant instructs you to prepare a trial balance and aging of the accounts on a specific invoice basis, on the basis of the information available in the ledger. If you feel that additional information is necessary to clear a point, you are not to ask the senior or the client, but should make a note of the item on your work sheet. Show on your work sheet any journal entries which you feel might be necessary. Although materiality should ordinarily be a consideration, you are asked to ignore that factor in this instance.

Remember that the senior accountant must take full responsibility for determining the collectibility of the accounts, and he will reach his conclusions largely from the information shown on your work sheet. To be certain you are presenting data in the most useful form, you should place yourself in the senior's position and decide what he would want to know and what would be important to him. The senior will, of course, make all important decisions after reviewing your work.

Anchor Corp.

Aug. 11	Sales	$1,520.30		$1,520.30
Sept. 21	Sales	675.50		2,195.80
30	Cash		$1,169.60	1,026.20
Oct. 20	Sales	2,550.00		3,576.20
25	Cash		675.50	2,900.70
Dec. 5	Cash		2,550.00	350.70
20	Sales	3,110.00		3,460.70
Jan. 1	Sales	794.30		4,255.00
8	Cash		3,110.00	1,145.00

J. P. Bell and Company

May 21	Sales	$1,784.96		$1,784.96
June 30	Cash		$1,500.00	284.96
July 3	Sales	397.40		682.36
31	Cash		397.40	284.96
Jan. 5	Allowances		284.96	0.00

Cleveland Parts Company

Sept. 10	Sales	$582.90		$ 582.90
12	Sales	429.15		1,012.05
15	Cash		$582.90	429.15
Oct. 29	Cash		129.15	
	Note-due 12/1		300.00	0.00
Dec. 5	Note past due	300.00		300.00

Corbin Bros.

Aug. 4	Sales	$309.82		$309.82
Sept. 1	Sales	628.97		938.79
Sept. 4	Cash		$309.82	628.97
Oct. 3	Cash		628.97	0.00
Nov. 18	Sales	251.38		251.38
24	R. G.		232.46	18.92
Dec. 20	Cash		251.38	232.46 Cr.

J. Drinkwater, President

July 10	Voucher Regis.	$1,000.00		$1,000.00
Dec. 26	Cash		$800.00	200.00
Jan. 4	Voucher Regis.	700.00		900.00

Exeter Corp.

Aug. 10	Sales	$587.96		$587.96
17	Sales	116.20		704.16
25	Cash		$300.00	404.16
Sept. 4	Sales	219.40		623.56
10	Cash		300.00	323.56
Jan. 5	Cash		100.00	223.56

Grant Construction Company

Nov. 5	Sales	$176.35		$176.35
15	Sales	305.80		482.15
Dec. 3	Cash		$176.35	305.80
8	Sales	285.23		591.03
12	Sales	97.52		688.55
15	Sales	171.65		860.20
20	Cash		382.75	477.45

Jiffy Gadget Company

Sept. 5	Sales	$491.25		$ 491.25
Oct. 1	Sales	705.21		1,196.46
7	Cash		$600.00	596.46
Jan. 5	Cash		500.00	96.46

M. Lister, Accounting Department

Dec. 15	Sales	$72.91		$72.91
Jan. 2	Sales	21.80		94.71
6	Cash		$72.91	21.80

Roanoke Boat Company

Aug. 27	Sales	$213.05		$213.05
Sept. 5	Sales	73.25		286.30
30	Cash		$170.00	116.30
Oct. 8	Sales	170.25		286.55
Nov. 5	Cash		170.25	116.30
12	Sales	231.82		348.12
Dec. 5	Sales	91.16		439.28
10	Cash		231.82	207.46
Jan. 3	Cash		91.16	116.30
7	R. G.		116.30	0.00

7 · Cash

Although cash is seldom a significant portion of a company's assets, a relatively large share of the total audit time is often spent in the examination of this item. This disparity between the financial significance of cash and the time devoted to its examination is explained in part by the close relationship between cash and other statement items. Almost all assets, liabilities, incomes, and expenses clear through the cash account, and the careful examination of cash lends additional validity to these other statement items.

The relative risk associated with cash also helps to explain the disproportionate amount of time likely to be devoted to its examination. Cash is the most liquid of all company assets and is therefore most likely to tempt the employee or officer whose moral resistance might be overcome by the need or desire for added financial resources.

The auditor must be careful, however, not to be carried away in making his examination of cash. Since no valuation problem is involved, cash can be accounted for to the penny, but the auditor should resist the temptation to carry his verification to such an extent merely because the possibility exists. Placed in proper perspective, cash is but one of many items making up the financial position of a business. For the auditor to be warranted in expressing his opinion on cash as a part of the financial position of a client, the auditor has only to be satisfied that cash is fairly stated in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year. A precise accounting for every penny of cash is neither required nor desirable, although some auditors and textbook authors occasionally overlook this fact.

In the case of small businesses where internal control is difficult or impossible to maintain, the examination of cash may be extended beyond the limits suggested above. The additional procedures will be related primarily to the detection of any fraud which might exist

and are strongly reminiscent of the days when the counting of cash and the search for defalcations were the auditor's primary functions. Extended examination procedures are also frequently performed as a defensive measure against clients or third parties who do not fully comprehend the purpose and significance of an independent examination of financial statements. For instance, a great deal of dissatisfaction may result if the auditor makes no attempt to count a $50 cash fund in an obscure location, even though the client may think it quite proper that the auditor do nothing about a hundred times that much inventory located at the same place. Similarly, the auditor's failure to detect a cash defalcation having no material effect on financial position or operating results might well evoke more criticism than a failure to point out that material amounts of repair costs had been improperly capitalized. Such situations evidence a need for an extensive program to educate clients and statement users, but progress along these lines is slow at best. Until the educational process is more complete, practical considerations will often suggest that the auditor protect himself by extending the scope of his examination beyond minimum requirements in formulating his opinion on a client's financial statements.

INTERNAL CONTROL

The objectives of a good system of internal control over cash are to assure that all receipts are accounted for, that all disbursements are made for valid business purposes, and that cash balances are adequately protected.

Cash Sales

Cash sales present an acute control problem, because ordinarily the same person will make the sale, handle the cash, and initiate the accounting record. There is thus little assurance that all sales will be recorded. In some instances, however, additional personnel can be brought into the handling of the sale transaction to increase internal control. A few department stores use the "cashier-wrapper" system, in which the salesperson brings the customer's merchandise and cash to a central desk where another person or persons record the sale, make change, and wrap the merchandise. Under such an arrangement, any attempt to withhold proceeds of a cash sale would necessitate either an easily detected violation of established procedures, or collusion.

Motion picture theaters usually employ another form of divided responsibility to control the accountability over cash receipts. The cashier must account at the end of the day for all prenumbered tickets issued to her. She must have either the unissued tickets or cash. To assure that a ticket is issued for each admission, a ticket-taker admits patrons only if they present the proper tickets. These tickets are usually torn in half, with one half deposited in a locked box and the other half returned to the customer. The patron's stub serves as evidence that he has paid for his admission, and the stub is also a vital factor in internal control. Any attempt to divert cash receipts for personal gain would require collusion between the cashier and the ticket-taker, plus a readily observed violation of established procedures, since the ticket taker would have to "palm" untorn tickets which he would then return to the cashier for resale.

Restaurants also employ such divided responsibility to assure full accounting for all cash received. Guest checks, prepared by the waitresses, become the record which establishes accountability over the cash collected by the cashier. To complete the control, however, a third person must be brought into the procedure, and it is at this point that good intentions often fall short, making the system ineffective. The third person must perform all three of the following steps: (1) total the guest checks collected by the cashier, (2) account for all of the serially-numbered checks issued since the previous day, and (3) inspect the checks for alterations. These three steps are important under any system in which hand-written checks establish accountability for cash collections.

When over-the-counter sales are involved, protection against fraud can be strengthened by the use of autographic forms registers. These machines automatically feed a three-copy form into an open writing space. The clerk then writes the sales check, turns a crank, and the machine ejects two copies of the sales check and deposits the audit copy into a locked drawer. The audit copy is thus tamper proof, and there is less possibility that abstracted cash receipts can be concealed by showing different information on the customer's copy and the store's copy of the sales check.

Probably the bulk of all over-the-counter sales are controlled by means of cash registers. Through "locked-in" totals, these machines establish control over all transactions recorded in the machine. Any or all of three separate devices are used to assure that sales will be recorded in the correct amount and that no sales will be omitted. One is the familiar bell which signals that a sale has been completed, and the cash drawer opened. Another is the visible record at the top

of the machine which proclaims to all who may be concerned the exact amount at which the sale has been recorded. The third is the printed receipt which the customer is trained to demand to establish proof of payment in the event a refund or a price adjustment is subsequently requested. Since the customer's self-interest will ordinarily involve a careful inspection of the cash register receipt, the receipt must disclose the actual facts of the transaction, and these facts will be irrevocably recorded in the registering mechanism of the machine.

The vital segregation between accountability and custodianship of the cash takes place after the sale is recorded. The sales clerk makes a "blind" count* of the contents of the cash drawer at the end of the day and turns the cash and this count record over to the central cashier. Someone who has no contact with the cash (usually the manager, the bookkeeper, or a member of the accounting department) then "reads" the cash register by inserting a key which is necessary to cause the machine to print the daily or cumulative total on the locked-in audit tape. The locked-in tape record of the day's transactions is then removed and used to establish the amount of cash which the cashier should have received from the sales clerk. A running record should be maintained of cash overages or shortages revealed by comparison between the audit tape and the sales clerk's cash summary ticket. Any variances beyond established tolerance limits should be investigated immediately.

As an additional over-all check on the recording of cash sales, many organizations supplement direct control over cash collections with careful inventory control. All merchandise on hand at the beginning of the accounting period, or added to the inventory during the accounting period, must be accounted for by merchandise on hand at the end of the period or by cash receipts. This form of inventory control over cash receipts is extremely important in such operations as filling stations, liquor stores, bars, sales branches, or chain stores.

Collections on Accounts Receivable

If billing, the posting of accounts receivable, and the follow-up of delinquent accounts are all handled by persons other than the one who receives collections on accounts receivable, the resulting internal control over cash collected will be quite adequate. The effect of segregating the handling of the cash received from the other duties in conjunction with receivables is to establish independent accountability over the funds collected, and thus to force the person receiving the funds to record and deposit all cash collected. Failure to

* That is, without knowing the amount of cash he should have.

account for all collections would bring a prompt response to credit department follow-up from customers who made payments but did not receive credit for them.

To make the internal control airtight, the segregation of duties should be absolute; that is, only an authorized person should ever receive cash, and that person should be denied any access to the receivables records. Unless such access is denied, the possibility exists that a collection from a cutomer could be withheld and concealed by posting a fictitious credit to the customer's account, or even by removing the ledger page and destroying it.

Cash Receipts Records

The record of cash received to be used as the source of postings to the receivables ledger may be a cash receipts journal or the remittance advices received with the checks. The remittance advice may be the voucher portion of a voucher check, a separate remittance advice form, or the top half of the monthly statement which the customer has detached and returned with his check. If no remittance advice is present, the amount of the check can be noted on the envelope in which the check was mailed, thus obviating the need to write down the customer's name and address. In some instances the checks themselves may be used as the posting media, but of course the cashier should retain a listing of the checks to assure that all checks have been returned by the receivables clerk.

Occasionally over-the-counter collections on installment receivables and the posting of the accounts will be handled by one person. Control over the collections can be maintained by employing a "window posting" machine which posts to the ledger, prepares a receipt for the customer, and records the transaction on a locked-in tape and registering mechanism. The control is thus accomplished through the same devices employed in using a cash register to handle cash sales.

Pre-list of Cash Receipts

When added protection of cash receipts received by mail is desired, a pre-list of the checks received can be made by the person who opens the mail. Such a pre-list may be necessary if the person handling the checks and preparing the bank deposit must have access to the receivables records in order to answer customers' inquiries or to verify discounts taken. The pre-list is certainly in order if the same person prepares the cash for deposit, posts the receivables, and handles other duties related to receivables.

Deposit of Cash Receipts

Although the person responsible for receiving cash collections will usually make the bank deposit, additional protection is gained if some other person makes the deposit after carefully comparing the listed checks and cash with the actual deposit. More important, however, is the requirement that each day's receipts be deposited promptly and intact. Daily deposit of cash received reduces the amount of cash on hand and possible loss from burglary. Furthermore, the cashier has less opportunity to "borrow" funds for short periods of time and less flexibility in concealing shortages by substituting later receipts.

Cash receipts should be deposited intact because disbursements made out of cash receipts are difficult to control and increase the opportunity for defalcation. An abstraction of cash receipts can be readily concealed by overstating disbursements or recording fictitious disbursements. As is suggested below, good internal control requires that all disbursements be by check except for minor cash disbursements from adequately controlled petty cash funds.

Disbursement of Cash

Although disbursements can be made in cash form for less cost than disbursements by check, the advantages of disbursing by check far outweigh the added cost. Disbursements by check can be more readily controlled. Anyone can scoop money out of a cash drawer, but only authorized persons whose signatures are on file at the bank can disburse funds on deposit in a bank. Also, the paid checks subsequently returned with the bank statement offer a complete record of every disbursement, including any which were not authorized; a cash disbursement leaves no such automatic record. Other advantages of disbursing by check include the automatic receipt of payment which the payee gives when the check is negotiated by endorsement, and the elimination of possible loss of funds through burglary.

Even though making all disbursements by check offers considerable control in itself, additional safeguards should be incorporated to assure maximum protection:

1. Checks should be prenumbered by the printer and all numbers should be accounted for. Spoiled checks which have been voided should be kept on file for subsequent audit verification.
2. Persons who prepare checks or have access to unissued checks should not handle cash receipts.
3. Officers or responsible employees who are authorized to review

documents and approve them for disbursement should be clearly designated and limited in number.

4. To guard against alterations of the amount, the amount of the check should be embossed on the check by means of a check protecting machine.

5. The treasurer or other designated officers should sign all checks, but only after reviewing all supporting documents to establish the propriety of each disbursement and to be certain that the item has not previously been paid. Two signatures are generally better than one, but the countersignature means nothing unless the second person makes a careful review of each disbursement. Second signatures often tend to become perfunctory. A check signing machine may be used to conserve executive time, but no relaxation of the preliminary review and approval of the supporting records should be tolerated. Care must be taken that the locked-in counting device on the signing machine shows that the number of checks signed agrees with the number of disbursements approved by the official whose signature is used. Custody of the signature plates and the keys which control the operation of the machine must be carefully maintained.

6. After the checks are signed the supporting documents should be perforated or marked paid to preclude the possibility that the documents might be paid a second time, either intentionally or by accident.

7. The signed checks should be mailed under the supervision of the person signing them. Under no circumstances should they be returned to the person who prepared them.

Bank Reconciliations

Employees who handle cash receipts or cash disbursements or have access to unissued checks should not be permitted to prepare bank reconciliations. Such a rule precludes the possibility of these employees attempting to conceal the theft of funds by manipulating figures on the bank reconciliation.

Another vital rule is that bank statements and accompanying paid checks should be delivered in sealed envelopes directly to the person responsible for preparing the reconciliations of bank balances with ledger balances. Restricting initial access to bank statements and paid checks to this person is important, because it prevents other employees from attempting to conceal shortages or unauthorized transactions by altering the bank statement or the accompanying paid checks. Methods of perpetrating fraud involving such practices are discussed in the final portion of this chapter.

When the above precautions and the steps enumerated below are carefully followed in conjunction with the preparation of the bank reconciliation, the bank reconciliation becomes an important check on the employees who handle cash receipts and cash disbursements. The reader should recognize that the following steps go beyond the mere mechanical procedures involved in constructing a bank reconciliation, and therefore accomplish much more:

1. Account for all check numbers; inspect voided checks.
2. Compare paid checks with the cash disbursement records as to number, date, payee, and amount.
3. Ascertain that all checks are properly endorsed and show additional endorsements only when circumstances are known to justify such endorsements.
4. Verify that checks have been signed only by authorized persons.
5. Refer checks which have been outstanding beyond a specified period to a designated person who should authorize a journal entry transferring the amounts to a liability account or to income.
6. Compare deposits per books and per bank statement as to amount and report any delay in deposits reaching the bank.
7. Trace bank transfers to determine that dates and amounts correspond for both bank accounts involved.

Completed bank reconciliations should be reviewed and approved by a responsible official, such as the manager, the controller, or the treasurer.

Imprest Funds

To facilitate the handling of disbursements which are minor in amount or recur regularly and involve numerous individual transactions, imprest funds are commonly used. Disbursements from these funds can be made more economically and with fewer precautionary internal checks involved. Basic control over the disbursements is exercised at the time that reimbursement of the funds is requested, since all fund transactions will then be grouped together for convenient and efficient review. Since each fund will contain only a small initial amount and restrictions can be placed on the types of transactions to be handled through the fund, the opportunities for fraud are definitely limited. The contrast is considerable when these funds are compared with the regular bank accounts, which often contain temptingly large balances for extended periods of time. Payroll and dividend funds should be handled through special bank accounts, but petty cash funds may be kept on hand in cash form or deposited and

disbursed through a special bank account as circumstances may warrant.

Bank accounts for imprest funds should be reconciled in the same manner and using the same precautions as for regular bank accounts. To limit further the opportunities for manipulation and the theft of company funds, the bank should be instructed not to accept for deposit in these imprest accounts any checks which are payable to the company. Reimbursement checks should be made payable to the custodian of the fund, or better yet, directly to the bank.

The following points relate primarily to the handling of imprest funds which are kept on hand in cash form:

1. A definite policy should be established limiting the types and amounts of disbursements which the petty cashier is authorized to make. Under no circumstances should employees be permitted to borrow from the fund. If the petty cashier is authorized to cash checks, the individuals or groups entitled to this service should be specified, but payroll checks should be specifically excluded from the authorization.

2. Although frequently the petty cashier is authorized to endorse checks which have been cashed, and in turn cash the checks at the bank, a better procedure is to deposit the checks with the regular daily receipts and draw a transfer check to reimburse the petty cash fund. This arrangement permits a constant check on whether the petty cashier's authority to cash checks has been exceeded.

3. Each disbursement from petty cash should be evidenced by an invoice marked "paid" or by some other form of receipt for payment. Payments to individuals for cab fare, supper money, or other purposes should be made only on presentation of a properly approved form authorizing the disbursement. The employee or other individual receiving the amount specified should sign the form to indicate receipt of payment. To preclude raising the amount of an authorization as a means of concealing the abstraction of petty cash funds, each authorization should be in ink and the amount should be written out as well as shown in numerals.

4. At the time the petty cashier submits a voucher requesting reimbursement of the fund, supporting papers should be reviewed for the propriety of each disbursement and for authenticity. The reviewer should stamp or perforate the papers to show they have been paid and to prevent their re-use.

5. Reimbursement of the fund should normally be made at the end of every month. Reimbursement at the end of the last month of the fiscal year is especially important.

6. The custodian of the petty cash fund should not be responsible for any other activities relating to the holding, receipt, or disbursement of cash.
7. Adequate physical protection of the cash fund should be provided.

Bonding

Fidelity bonds covering employees handling the liquid assets of a business protect the business in the event that internal check breaks down, is inadequate, or is negated through collusion. Such bonds also carry with them added assurance that the covered employees have been above reproach in any previous employment, since bonding companies carefully investigate all employees on whom bonds are requested in order to keep the risk of loss to a minimum. The mere fact that an employee is highly trusted is not a substitute for bonding: most thefts are committed by trusted employees, since they have the greatest opportunity to steal!

Internal Reports

The control of cash is less dependent on internal reporting than is true of an asset such as accounts receivable, but some reports are necessary. As has already been indicated, the treasurer, manager, or other appropriate officer should review and approve all bank reconciliations each month. Such a requirement insures that the reconciliations will be prepared regularly and presents an opportunity to detect obvious errors or efforts to conceal the true facts.

When large amounts of cash are handled, as in the case of most retail businesses, cash variances are certain to occur. Since avoiding such variances is a practical impossibility, the only alternative is to watch them closely so that excessive variances will be quickly disclosed. Corrective action can thus be instituted before the situation develops more fully. The net cash shortage or overage is perhaps the most important figure, but the individual variances which go to make up the net figure should also be watched. Large individual variances, even though resulting in a small net variance, are significant because they evidence loose control or inaccurate cash handling and because in the long run the shortages will probably far outweigh the overages.

Daily information about cash receipts, disbursements, and balances is essential. Enough cash must be made available to cover anticipated disbursements, and excessive balances should be converted to a productive use whenever conditions warrant. In small businesses the

necessary information is usually secured through personal contact with daily transactions and an intimate knowledge of future cash requirements. In large businesses the lack of personal contact must be offset by daily reports showing cash received, cash disbursed, and closing balances. To assist in anticipating the requirements of the immediate future, information about receivables and payables will be helpful. This information should include daily debits and credits to these accounts and the closing balances. For long term planning of cash needs the cash forecast or budget will prove to be indispensable.

Internal Auditing

An effective program of internal audit of the cash function should include most of the following steps to be performed on a regular basis at least once a year:

1. Examination of transactions and records to show whether established procedures are being followed and internal checks are functioning as intended.
2. Surprise count of all cash on hand.
3. Confirmation of bank balances and verification of reconciling items on the bank reconciliations prepared by regular accounting personnel. (The bank statement and paid checks for the following month should be obtained directly from the bank by the internal auditor and used in proving reconciling items.)
4. Test of cash receipts and cash disbursements against supporting data and reconciliation with receipts and withdrawals per bank statement.
5. Comparison of paid checks with the check register, noting that all checks are accounted for, signed by an authorized official, and properly endorsed.
6. Proof of footings of the cash receipts and cash disbursement records.

STANDARDS OF STATEMENT PRESENTATION

Ordinarily all cash will be shown on the balance sheet as one figure, described simply as "Cash" or "Cash on hand and in banks." Only in rare cases will the amount of cash on hand be of sufficient importance to warrant being shown as a separate figure. Similarly, little is added to the usefulness of a statement by breaking down the

cash in banks figure between the various banks. The amount of cash shown, however, must be "free" and available immediately for general business purposes. This requirement indicates that any of the following items which are material in amount must be shown separate from the cash figure, either as another form of current asset or under a noncurrent classification, depending on the exact nature of the item:

1. Amounts represented by certificates of deposit or savings deposits. Even though savings deposits can usually be withdrawn on demand, the bank retains the right to require a stated number of days notice before paying out the funds.
2. Funds for plant expansion, sinking funds, or any other funds which are to be used for nonworking capital purposes. The mere fact that the fund is held by the company rather than by a trustee is unimportant; the intended use to be made of the fund is the governing factor.
3. Minimum bank balances which must be maintained in accordance with bank loan agreements. As an alternative, the restricted amount may be shown parenthetically or by footnote.
4. Balances in closed banks. Even though such balances now occur only infrequently, the fact still remains that a bank is much like a parachute; neither is any good unless it opens. Claims against closed banks which were uninsured and claims arising from deposits in excess of the $10,000 insurance limit should be reduced to an estimated recovery value and classified as noncurrent assets.
5. Foreign balances which are not to be used in connection with foreign operations and which cannot be converted readily into domestic currency because of exchange restrictions.
6. Expense advances to employees for travel or other purposes. These advances are not available for general purposes and are essentially prepaid expenses.
7. Deposits of any form, such as deposits on contracts, deposits with utilities, or escrow deposits.

Custom with respect to the presentation of bank overdrafts has undergone a period of change which is about completed. At one time standard practice required that overdrafts be shown as a liability. Current practice is more realistic and recognizes that if bank balances are readily transferable, overdrafts may be netted against balances in other banks. A minimum balance to be maintained in connection with a loan would not, of course, be readily transferable, and therefore an overdraft could not be offset against such an amount.

VERIFICATION OF STATEMENT AMOUNT

The material in this chapter relating to verification objectives and procedures is divided into two parts. This part reflects generally accepted auditing standards for the examination of cash when the auditor is making an examination of the client's financial statements for the purpose of expressing an opinion on those statements. Internal control is presumed to be satisfactory, and hence the auditor's primary objective in examining cash is to determine whether cash is fairly stated. Under such circumstances the detection of fraud in the accounts is of secondary concern unless the fraud is of such magnitude that the client's financial position is materially affected. In that event normal balance sheet verification procedures should reveal what has happened.

When the auditor is specifically authorized to include the detection of fraud in the scope of his examination, additional objectives and procedures should be incorporated in the auditor's approach to the examination. These additional objectives and procedures, designed to detect the more common methods of perpetrating fraud in the handling of cash transactions, are discussed in the following section of this chapter, beginning on page 177. Various methods of fraudulently concealing the theft of cash are also presented so that the reader will have a clear understanding of exactly what the auditor must watch for.

Assignment of Audit Staff

Since performing the examination of cash tends to require less judgment than the examination of most other statement items, a new staff man with no experience is likely to receive his introduction to audit examinations in the cash area. He will probably be handed the detailed audit program and the previous year's working papers, be introduced to the client's employee who has custody of the necessary records, and be expected to follow the directions in the program and make a competent examination.

Although the wisdom of assigning the lowest-ranking man to this important phase of the examination may be questioned, there is every assurance that an alert junior accountant can do an adequate job if he understands the objectives underlying the various auditing procedures and can follow instructions. Judgment is required in the preparation of the audit program and in the disposition of any exceptions or discrepancies disclosed by the examination, but the junior

accountant need not be concerned with these problems. They are the responsibility of the senior accountant.

Although the actual cash examination requires relatively little judgment, it does require certain other characteristics in a very high measure. The work is usually dull, tedious, and repetitive, but at the same time requires the closest attention to minute details. Alertness and the careful performance of each operation are essential in order that no difference may pass unnoticed. Every difference is a potential clue which might lead to the disclosure of an important irregularity or defalcation.

Inasmuch as cash presents no valuation problem, the objectives relating to the verification of the amount of cash for statement purposes are fewer in number than those having to do with the verification of receivables. These objectives are listed below:

1. To substantiate the statement amount through supporting internal records.
2. To determine that all cash is where it is supposed to be.

Substantiation of the Statement Amount Through Supporting Internal Records

Most of the procedures involved in the attainment of this objective pertain to the records of cash in banks, but petty cash funds should definitely be included when applying the first procedure given below.

Verification of Entries in Cash Accounts. Entries in the cash accounts should be traced to their source for one or more months, depending on the amount of internal control which is present. If the preparation, totaling, or posting of the records of cash receipts and cash disbursements are performed by employees who have any contact with cash or checks, the auditor should probably prove the footings of these records for one or more months. Also, the examination of the records should be extended to include tracing of entries in the journals back to their source. In the case of cash disbursements, source records would include vouchers, invoices, receiving memos, and paid checks. Cash receipts source records would include remittance advices accompanying orders or payments of account balances, receipts issued for over-the-counter payments, sales checks, or cash register tapes. Additional audit procedures to be employed when internal control is weak, or when the auditor is authorized to search for irregularities, are discussed in the last portion of this chapter.

Although ordinarily no entries will appear in imprest fund ac-

counts, the auditor should review the supporting data for at least one reimbursement of each fund during the year. In making such a review the auditor should be particularly careful to note that transactions in the funds have been limited to those types which have been specifically authorized, and that each disbursement has received the proper approval.

The above verification procedures are often performed as a phase of the review of internal control. Under such circumstances, the auditor's findings, as he proceeds, will determine how extensively he should retrace the steps in the client's accounting process in order to ascertain the validity and reliability of the final figures.

Cut-off of Cash Receipts. The auditor must satisfy himself that the cash receipts records have not been held open to include cash collections received after the balance sheet date. This point is particularly important if cash sales are involved, since income will be affected. If all cash collections pertain to accounts receivable, the financial picture is changed only slightly by improperly moving up receivables amounts into cash. Holding open the cash receipts book under these circumstances may, however, be merely a prelude to holding open the cash disbursements book as well, which has a more serious effect on financial position.

Occasionally a client will hold the cash receipts record open to receive payments which have been dated and mailed by customers before the balance sheet date. This practice may appear to have some merit, particularly in the eyes of the client, but the fact remains that such receipts were unavailable for general use by the business on the balance sheet date since the business did not have possession of the funds. Consequently, if material amounts are involved, the auditor has no choice but to insist that the client reverse the recorded collections and restore the amounts to receivables or, should income be involved, eliminate the amounts entirely from the current period.

There are two conclusive procedures which the auditor can apply to determine that the cut-off of cash receipts has been properly handled. If the auditor is at the client's premises at the close of business on the last day of the fiscal year or at the beginning of the following day, a count of all undeposited cash receipts will establish the proper cut-off of cash. Based on his count the auditor will know how much cash was actually received up to the close of business, and any attempt by the client to include in the records cash received after that point will be immediately apparent to the auditor. Should the auditor wish to avoid making a time-consuming cash count, an alternative is to place the undeposited receipts under his control until they reach the bank. Control can be established by sealing the cash

in an envelope or pouch which can then be locked in the client's safe until the bank deposit is ready to be made. With such precautions no additional cash subsequently received can be added to the deposit without the auditor's knowledge, and the bank's entry for the deposit on the bank statement will establish the amount of cash which was held by the client at the close of the year.

It will seldom be feasible, however, for the auditor to be present at each client's office on the balance sheet date. Nor will the auditor's presence be necessary in most instances. Instead, the auditor can usually make satisfactory verification of the cut-off of cash receipts through a careful examination of deposits in transit listed on the client's year-end bank reconciliation. All such deposits in transit, if valid and including only cash received up to the close of the fiscal year, should be credited by the bank on the next business day following the close of the client's fiscal year. A deposit not reaching the bank on this time schedule carries a strong presumption that cash received subsequent to the balance sheet date has been included.

Other evidence that ought to suggest the possibility that the cash cut-off is not as it should be would include exceptionally heavy cash receipts or sales recorded at the end of the fiscal year, light cash receipts or sales recorded for the early days of the following year, and an unusually low accounts receivable balance at the year end.

Cut-off of Cash Disbursements. The auditor must be particularly careful to watch for any evidence that the cash disbursements record has been held open. The resulting simultaneous reduction of cash and accounts payable will improve the current ratio—a very understandable objective if financial condition and credit standing are weak or if a bond indenture specifies a minimum current ratio which has not been maintained. If the client could not reduce liabilities at the balance sheet date because sufficient cash was not available, the auditor should realize that the required cash could have been "generated" by holding open the cash receipts book.

Evidence that the cash disbursements record has been held open is less conclusive than is evidence concerning the cut-off of cash receipts. For instance, substantial disbursements at the year end coupled with limited disbursements during the first part of the following period would not necessarily mean that the cash disbursements record had been held open. Many businesses make a special effort at the end of the year to reduce their liabilities. If the cash is available, and if the checks are placed in the mail before the year end, the resulting improved financial picture is entirely proper. The auditor's problem, of course, is to satisfy himself that the checks were actually in the mail and therefore beyond the client's control by the close of the year.

If he can satisfy himself on this point, the large number of outstanding checks on the bank reconciliation and the abnormally low amount of payables need cause him no concern.

If the auditor is at the client's office at the close of the year he should note the serial number of the last check which has been written, and by inquiry, determine that this and all previous checks have been placed in the mail. Any additional checks which the client might then wish to show as disbursements of the expiring fiscal year would be readily detected by the auditor, and he would know that they had been written and mailed after the close of the year.

Since the auditor will seldom be on hand at the end of the year, some other means of verifying the cut-off of cash disbursements must obviously be employed. The necessary evidence can usually be obtained by examining the checks paid by the bank during the first part of the month following the close of the year. For those checks which were outstanding at the end of the year, the auditor should note the lapse of time from the date of each check to the date the check was charged against the client's account, as indicated by the perforations which the bank makes in each check when it is paid. If this time period is longer than should be warranted for the check to reach the payee, be handled and deposited by him, and be returned to the client's bank, the auditor should suspect that the check may have been mailed after the close of the year. Should it develop that this check is but one of a block of outstanding checks which did not clear the bank within a reasonable period of time, the evidence of what has apparently occurred is quite conclusive. When the evidence is placed before the client it should bring forth full admission from the client as to what was done, and the client should be expected to consent to correct the records so that they will reflect the true financial picture. Any tendency by the client to deny what has apparently happened should be regarded by the auditor with considerable suspicion.

Kiting. Although kiting is likely to occur only rarely, and then only in smaller businesses, the auditor must nevertheless take precautions which will disclose the situation if it exists. Kiting can be used to conceal a shortage of cash in bank, and its detection will thus not only reveal that a defalcation has occurred but also that the client's financial position is overstated. The manner in which this form of manipulation is accomplished is shown by the following example. A company located in Kansas City has a sales branch in New York. All collections in New York are deposited in a special bank account there. Only the treasurer of the company, who is located in Kansas City, is authorized to sign checks transferring funds from the New York account to the regular account in Kansas City. Just before the end

of the year the two bank accounts appear as follows (ignoring reconciling items):

	Kansas City	*New York*
Balance per bank	$15,000	$10,000
Balance per books	20,000	10,000

The Kansas City bank account is short $5,000, representing collections which the cashier has withheld. To conceal the shortage the cashier draws a transfer check on December 31 to transfer $5,000 from New York to Kansas City. The treasurer signs the check because the check appears to be a regular check drawn in the normal course of business. The cashier then deposits the check in the Kansas City bank but enters the check in the company records for January. The check will thus appear as a deposit on the Kansas City bank statement on December 31, but because of transit time will not appear as a withdrawal on the New York bank statement until several days later. The result is that at December 31 the Kansas City bank would show $20,000, the amount called for by the books, the New York bank would still show the $10,000 called for by the books for that account, and no shortage would appear to exist. The shortage will reappear, of course, as soon as the transfer check is paid by the New York bank.

The auditor's best course of action in seeking to detect the existence of kiting is to prepare a schedule of all interbank transfers made during the last few days of the current year and the first few days of the following year. The transfer check in the above example would be shown on a schedule of interbank transfers in this manner:

	Kansas City	*New York*	*Date Withdrawn*		*Date Deposited*	
Check No.	*Bank*	*Bank*	*Per Books*	*Per Bank*	*Per Books*	*Per Bank*
4297	$5,000	($5,000)	1/2	1/3	1/2	12/31

This schedule shows at a glance that something is amiss.

Other means of detecting kiting can be used either in lieu of or to supplement the analysis of interbank transfers. In the case just discussed, a comparison of deposits recorded by the bank and shown on the books for the last few days of the year would show a bank deposit for which there would be no corresponding book entry. If such a discrepancy is not the result of kiting, the explanation is probably that an employee is replacing money which was "borrowed" from the bank account at an earlier date. Such a practice is, of course, equally as objectionable as kiting. Another procedure is to examine all checks paid by each bank during the first few days following the

close of the year. Checks dated before the close of the year should agree with corresponding entries in the cash disbursements record and should be listed as outstanding on the bank reconciliation. The check in question, bearing a date of December 31, would appear in neither place.

It might seem that the preceding method of detection would break down if the check were simply dated "January 2." Such a possibility is unlikely because the bank should refuse to accept such a check for deposit on December 31, although it is quite possible that the bank would not notice the postdating of the check. If the check *did* pass the bank, the auditor can still uncover the irregularity. Banks always endorse customers' checks by stamping both the bank name and the date of the transaction on the back of each check. Thus the auditor has only to take the checks paid by the New York bank during the first few days of January and compare the date on the face of each check with the date of the earliest bank endorsement appearing on the reverse side. Any bank endorsement which predates the date of the check is a danger signal.

All kiting operations depend for their success on utilizing the "float" period while a check is in transit from one bank to another. In some instances the float period is used not to conceal a book shortage, but as a means of concealing an actual overdraft from the bank. For instance, a company may have two bank accounts in widely separated places, each account having a balance of $1,000. The company must pay a $5,000 debt, and does so by drawing a check on Bank A. To prevent the bank from dishonoring the check for lack of sufficient funds, a check for $4,000 is drawn on Bank B and deposited in Bank A. This check will in turn overdraw the account in Bank B, so a check for $4,000 is drawn on Bank A and deposited in Bank B to cover the original transfer check drawn on Bank B. The process must be repeated constantly until sufficient funds can be deposited to permit all checks to be covered. Although this might seem to be a very unlikely course of action, a case is reported in which a small businessman in Missouri concealed overdrafts totaling $35,000 in this manner!

Lapping. Lapping is another form of embezzlement in which the embezzler must "keep running to keep even." As stated in the preceding chapter, lapping of collections on accounts receivable can be detected by confirming account balances with customers. Lapping may also be disclosed by a careful examination of the cash records if customers pay by check, and provided they do not pay in round amounts as in the case of installment accounts. When each check received is for a different amount, the check received from A and ap-

propriated by an employee will not be covered exactly by the check received from B a day or two later. Thus the entry in the cash receipts record crediting A for the check received from B will not agree with the amount of the check. The difference can be made up by depositing additional cash if B's check is smaller, or by making an additional credit to some other account if B's check is larger than the credit which must be made to A's account.

Whereas the total of the day's collections shown by the cash receipts record and the total of the deposit ticket showing the amount of cash deposited will agree when lapping has occurred, the individual amounts listed on the deposit ticket will not agree with the individual amounts shown by the cash receipts book. An item-for-item comparison of these two records will therefore show whether lapping has occurred. Since there is a possibility that a duplicate deposit ticket in the client's possession may have been altered to conceal an irregularity, a copy of any deposit ticket to be checked by the auditor should first be sent to the bank with a request that the bank compare the ticket with its copy. If the two copies agree, the bank will "authenticate" the deposit ticket with a stamp showing that it agrees with the copy in the bank's records.

A word of caution is warranted about placing too much reliance on bank deposit tickets, even if they have been authenticated by the bank. Most banks prove each customer's deposit in total only, as a part of a "central proof" operation. Thus it is quite possible that a deposit ticket could show details which differed from the actual checks deposited, and the discrepancy would be discovered by the bank only if the deposit did not prove, necessitating a comparison of the bank's listing with the depositor's listing. Consequently, there is a possibility that an employee who is familiar with both auditing procedures and banking procedures might contrive to destroy the effectiveness of the detailed comparison of an authenticated deposit ticket with the cash receipts record.

Window Dressing. Although window dressing does not necessarily misrepresent a client's financial position at the balance sheet date, the effect is misleading and therefore undesirable. Holding the cash books open is a method of window dressing which does actually misrepresent the facts. A form of window dressing, which strictly speaking does not misrepresent the facts, results if an officer who has borrowed funds from a corporation repays the loan shortly before the balance sheet date, and then is re-advanced those funds after the close of the year. Careful review of cash transactions occurring near the balance sheet date should reveal any window dressing which may have been attempted.

Determination That All Cash Is Where It Is Supposed to Be

Once the auditor has examined the supporting records and thus satisfied himself that the cash figure is fairly stated, his sole remaining objective is to satisfy himself that all cash called for by the records can be accounted for. The cash will ordinarily be either on hand or on deposit at one or more banks.

Cash on Hand. Petty cash funds, change funds, and undeposited receipts will ordinarily comprise all or most of the cash on hand. If the amounts are material, the auditor should plan to count the cash at the close of the year. Otherwise, the imprest funds can be counted at any time that is convenient for the auditor, with the added advantage that some element of surprise is injected into the count. If undeposited receipts are not material, they need not be counted because they can be verified through reference to the record of their deposit on the bank statement for the following period. The auditor should note, of course, that the deposit was made promptly. If the deposit was delayed in reaching the bank, the auditor should carefully investigate the possibility that the cash receipts book was held open or that the cashier included subsequent receipts in the deposit to cover up a shortage.

If cash is to be counted, the auditor must be certain that all cash and any assets which are readily negotiable or easily pledged are counted simultaneously or kept under the auditor's control until all counting is completed. By exercising this precaution the auditor can be assured that funds which have already been counted are not used to make up a shortage in another fund still to be counted. If good internal control has been violated by permitting a fund custodian to handle other funds not under company control (such as flower or party funds), these other funds should also be counted and balanced with available records. Otherwise, these funds could be used to offset a shortage in the company funds.

For his own protection, the auditor should count all funds or negotiable instruments in the presence of the custodian of the assets. If the auditor fails to exercise this precaution and the fund is revealed to be short of the required amount, the auditor will have little defense to the custodian's possible assertion that "It was all there when I gave it to you." As further protection, the auditor should have the custodian sign a receipt stating that the count was made in the custodian's presence and the funds returned to him intact at the completion of the count. Schedule A-1 at the close of this chapter

contains an example of such a receipt obtained in connection with the count of a petty cash fund.

Some accounting firms go to the extreme of not permitting staff men to handle any of the client's funds. Instead, the custodian of each fund is requested to count the fund under the surveillance of the staff man. A variation of this arrangement is useful when very large amounts of cash are on hand, as in the case of a large department store. The store's internal auditors or other employees not connected with the cashier's department can be requested to count the cashier's funds under the independent auditor's supervision. Since a considerable measure of internal control is evident in such an arrangement, a limited number of accountants from the independent auditing firm can supervise and observe the counting being done by a large number of store employees.

Coins and currency. Regardless of how the actual counting of cash is to be handled, some agreement must be reached in advance on what shall be done concerning bundled currency and wrapped coins. Since the coins will seldom constitute a significant portion of the fund, the rolls of coins can usually be accepted for listing on the count sheet without opening and counting any of the rolls. If desired, a few of the rolls can be broken open and counted as a test, or the paper wrappers can be scratched open to verify that the rolls contain coins and not pieces of lead pipe of the appropriate size and weight. The auditor should, of course, note whether the diameter and length of the rolls corresponds with what would be expected for the following standard contents:

Denomination	*Number of Coins*	*Value of Roll*
Dollars	20	$20.00
Halves	20	10.00
Quarters	40	10.00
Dimes	50	5.00
Nickles	40	2.00
Pennies	50	.50

Bundled currency presents more of a problem because of its greater value. If only a few bundles are involved, the auditor should probably open and count each bundle. If there are quite a few bundles, as in the case of a bank, and if internal control is adequate, the bundles may be test counted. For smaller denomination bills, only 5 or 10 per cent of the bundles may be counted, but for bills of large denomination 50 per cent or more of the bundles should probably be counted.

As is shown on schedule A-1, the auditor's work sheet should show the quantity and total value of each denomination of coin and cur-

rency. Loose items should be listed separately from the wrapped or bundled items. Listing each quantity and its total value reduces the possibility of error in figuring total values for the various denominations and assists in locating counting errors if the auditor's count should not balance with the accounting records.

Checks. Customers' checks or checks cashed as an accommodation are almost certain to be encountered in making a cash count. If only a few checks are on hand the auditor may list the checks on his worksheet, as is shown on schedule A-1. An adding machine tape listing of the checks will usually suffice if the checks are quite numerous. In some instances, when large numbers of checks are present, the auditor may not even count the checks. If they are part of the day's business to be deposited the next day and have been handled under good internal control, the auditor may simply permit the client's employees to prepare the regular deposit. The deposit should then be kept under the auditor's control during the count of other funds and until the deposit reaches the bank. Since the bank must prove the deposit anyway, the auditor merely asks the bank to notify him whether the actual deposit agreed with the amount shown by the client on the deposit ticket.

If the auditor plans to count the checks on hand, each check should be carefully examined in an effort to substantiate its validity and collectibility. Points to be observed would include

1. Date: a postdated check cannot be classified as cash, and a check bearing an old date suggests that the check is possibly being held because it is uncollectible.
2. Payee: checks should be made payable to the client, except in those instances where authorization exists to accept checks payable to others as an accommodation.
3. Endorsement: checks not payable to the client should bear the endorsement of the original payee and that of the person who transferred the check to the client, if that person was not the payee. As a protective measure, all checks should be endorsed by the client "For deposit only."
4. Maker: checks which have been signed by an employee or officer should always be carefully investigated to determine whether the checks are valid and properly included in the fund being counted.

The best test of validity is depositing the checks to determine whether they can be collected. The checks should be controlled by the auditor until they reach the bank to prevent other checks from being substituted for any checks which are not valid or collectible. The bank should be requested to notify the auditor if any of the checks

are not collected, or at the very least the auditor should inspect the bank statement for the following period to see if any uncollectible checks have been charged back against the client's account.

Undeposited receipts. The auditor should always ascertain that all cash on hand representing receipts from customers has been recorded in the appropriate record. If all or part of the receipts are not recorded, the unrecorded receipts which have been included in the counted cash would serve to cover up any shortage which existed. Furthermore, the receipts should be recorded *before* the auditor makes his count, so that the auditor can compare individual items in order to determine whether lapping has occurred.

Petty cash funds. If petty cash funds are counted at other than the balance sheet date, part of the funds will likely have been disbursed, and receipted petty cash vouchers or other supporting data will be present in their place. This condition should not hold true at the balance sheet date. Any disbursements occurring before that time should be reimbursed in order to reflect the expenses in the proper period and to have the fund in cash form, thus permitting the entire balance to be classified as cash. If such reimbursement has not been made, technically the auditor should prepare an adjusting entry in order to have the statements reflect the actual conditions. As a practical matter, however, the amounts will usually not be material, and the adjustment can be passed as was done on schedule A-1.

Any disbursement vouchers which are on hand at the time of the petty cash count should be listed in the auditor's working papers. The date, recipient, purpose, and amount of each disbursement should be shown, although if a large number of disbursements has been made, an adding machine tape listing will usually suffice. Each voucher or invoice should be reviewed to determine that it bears a current date, has been approved or receipted as required, has not been cancelled, and is in accordance with the authorization for the operation of the fund. In addition, some auditors request a responsible official to review the list and sign a statement indicating that each item represents a valid and appropriate disbursement. This procedure was followed in the preparation of schedule A-1.

If small cash funds are held at locations which are not readily accessible, the auditor should at least obtain written confirmation from each fund custodian indicating that the fund actually exists and is intact.

Although much discussion has been presented concerning the techniques of handling cash counts and the reasons for those techniques, the reader should not allow himself to lose sight of the primary objective in counting cash on hand: to determine that all

of the cash called for by the records as being on hand is actually there and fully accounted for.

Cash in Bank. The auditor's first consideration in verifying cash in bank is to ascertain the actual balance on deposit. Even though this balance can be determined by referring to the bank statement, standard practice requires that independent confirmation of the bank balance be obtained directly from the bank. To facilitate obtaining such confirmation, plus important information on other relationships between the client and the bank, Standard Bank Confirmation Form —1953 is customarily used. This form, a copy of which is shown as schedule $\frac{\text{A-2}}{1}$, has been approved by the Committee on Auditing Procedure of the American Institute of Accountants and by the National Association of Bank Auditors and Comptrollers. The printed form consists of an original and a duplicate copy. The request for the specified information must be signed by one of the client's officers whose signature is on file at the bank. A bank should not release confidential information about a customer's affairs without proper authorization, and the duplicate copy is retained by the bank to prove that it had such authorization. Other information typed on the form before it is mailed includes: (1) the name and address of the bank (so located on the form that a window envelope can be used for mailing), (2) the date for which the information is requested, (3) the client's name, and (4) the name and address of the auditor to whom the reply is to be sent. As with all confirmation requests, mailing should be by the auditor.

Sometimes the auditor will insert the designation of the various accounts carried with the bank, but it is usually better to omit this information, since there will then be less likelihood that the bank will overlook any accounts carried for the client but not shown by the client's records. The bank will also show whether the account is subject to withdrawal by check and whether the account bears interest. If the account is not subject to withdrawal by check, the auditor should determine whether the account is properly classified as cash on the balance sheet. The data on interest is further evidence of whether a balance can be withdrawn on notice and also enables the auditor to ascertain that all interest income has been accounted for. In addition to the data on bank balances, the confirmation request also covers the following points, which are of vital importance to other phases of the audit examination: any direct liability of the client to the bank on loans, acceptances, or other types of paper; any contingent liability for discounted notes or as guarantor for others;

and any other direct or contingent liability, any open letters of credit, and any collateral held by the bank. The bank should, of course, date and sign the form before it is returned to the auditor.

The bank reconciliation. The verification of cash in bank is far from completed when the auditor has secured confirmation of the balance on deposit. Invariably the client's balance for the bank account will reflect transactions not yet recorded by the bank, and the bank may have recorded some transactions not yet recorded by the client. These reconciling items, which must account for the difference between the client's balance and the bank's balance, must be carefully verified before the auditor can be satisfied that the amount of cash in bank specified by the client's records has been adequately accounted for.

In most instances the client will have prepared a bank reconciliation, based on the bank statement for the last month of the client's fiscal year, and setting forth the various reconciling items. The auditor should obtain this reconciliation and in the course of his verification work should prove that the reconciliation is mathematically correct. The validity and accuracy of the reconciling items must also be verified. The most obvious approach to this problem would appear to be a repetition of the processes employed by the client in constructing the reconciliation. Actually, however, this is neither the most efficient nor the most conclusive solution. A far better method is a review of subsequent events to determine whether incomplete transactions have been completed as would be expected, and to ascertain whether any incomplete transactions at the balance sheet date have been omitted from the reconciliation.

Bank cut-off statement. The principal source of information which the auditor uses in proving reconciling items is the bank cut-off statement. This is simply a bank statement covering a specified number of days following the close of the client's fiscal year. For very large businesses with considerable check activity, a five- to ten-day period may be adequate, but for smaller businesses with less internal control the statement may cover two weeks or even a full month. The request to the bank for the cut-off statement must, of course, be signed by the client. In this request, the bank will be directed to deliver to the auditor the bank statement and accompanying paid checks for the specified period. The possibility that a member of the client's organization might alter the statement or tamper with the accompanying checks makes it most desirable that the statement be delivered by the bank directly to the auditor. Should circumstances make such delivery impossible, the auditor should be particularly careful to scrutinize the bank statement for alterations, and he must

determine that all debits on the statement are properly supported by paid checks or bank debit advices. This step is known as "proving" the bank statement. As a guard against the substitution of spurious checks or bank advices, each document should be inspected to ascertain that the date of payment perforated into the document by the bank falls within the period covered by the bank statement.

When internal control is adequate, verification procedures based on the cut-off statement should be sufficient to prove the validity of the client's reconciliation. These procedures are discussed in the following three sections. If internal control is weak, additional procedures as described in the last portion of this chapter should also be applied.

Deposits in transit. In verifying deposits in transit the auditor should realize that a shortage of cash in bank can be concealed by an overstatement of deposits in transit. The verification procedures which are ordinarily followed should detect any possible overstatement if the procedures are properly applied. These procedures follow:

1. Trace the deposit in transit figure to the client's cash records to determine that the figure agrees with the amount of cash shown as received on the last business day. If more than one day's receipts are involved, thorough investigation of the situation should be made.
2. Compare the deposit in transit figure with the count of cash on hand, if such a count was made by the auditor at the close of the year. Cross-reference the two schedules.
3. Trace the deposit in transit figure to the cut-off bank statement. The date of the bank entry for the deposit should be noted in the working papers as was done on schedule A-2. Any deposit which does not reach the bank by the next business day should be investigated. Possible causes of such a delay might include holding open the cash receipts record, and using subsequent collections to make up a shortage. If there is any possibility that lapping may have occurred, authenticated duplicate deposit tickets should be secured covering the deposit in transit, plus additional days' deposits if necessary. Each such deposit ticket should be compared item-for-item with the detailed record of cash received.
4. Ascertain that all checks deposited were collectible by noting whether the cut-off statement shows any debit memos for checks charged back against the client's account.

Outstanding checks. The most troublesome and potentially dangerous item on the bank reconciliation is outstanding checks. The greatest danger is not, as the neophyte often assumes, that a check may

have been included which is not actually outstanding, but that a check which *is* outstanding may have been omitted or shown at less than the actual amount. In terms of relative risk, the most likely possibility is that the ledger figure for cash may exceed the cash on deposit as a result of a defalcation. Any attempt to conceal the resulting shortage of cash through manipulation of the figure for outstanding checks on the bank reconciliation must of necessity involve an *understatement* of that figure or the *omission* of a check which is actually outstanding. If this point is not clear to the reader, he should work out a simple illustration to prove to himself that concealment of a cash shortage by means of manipulating outstanding checks must involve an understatement of the outstanding checks.

The incorrect listing of a check on the bank reconciliation can be readily detected in several ways, as will be shown presently, but disclosing that an outstanding check has been omitted is a far more difficult matter. Since the omitted check is not known to the auditor he has no specific point at which he can begin his investigation. An omitted check may have been written months, or even years, before the beginning of the auditor's investigation. A review of all checks written since the previous audit would be required to discover the existence of an outstanding check which had been purposely omitted from the bank reconciliation. The magnitude of such an undertaking should be evident when it is realized that many businesses write thousands of checks every month. Furthermore, the results of such an investigation would not necessarily be fully conclusive. In view of such problems and limitations it should be apparent that the auditor can hardly be expected to state that the cash figure is correct. He can, however, determine with reasonable assurance whether the figure is fairly stated, which is adequate for the needs of most third parties who refer to and rely on financial statements. The auditor's opinion that cash is fairly stated should be taken to mean that in his opinion no pronounced misstatement has occurred which would actually affect a reader's conclusions concerning the company's financial position.

The usual audit procedures employed in the search for significant amounts of outstanding checks which may have been omitted from the bank reconciliation are included below. When internal control is weak or fraud is suspected, certain additional procedures may be employed. These are included among the more detailed procedures, discussed in the last section of the chapter, which are used in conjunction with the proof of cash. The following procedures represent a typical approach to the verification of outstanding checks under conditions of reasonably good internal control.

1. While the checks returned with the bank cut-off statement are still in order according to the dates on which they were paid by the bank, examine the checks for predating; that is, for a bank endorsement which predates the date of the check. A check evidencing such predating should suggest the possibility that kiting has occurred, or perhaps that a bill had to be paid but the check was not recorded in order to avoid showing an overdraft on the books.

2. Sort the paid checks into serial number order.

3. Ascertain from the cash disbursement records the number of the last check recorded during the fiscal year under examination.

4. Review checks bearing a higher serial number to be certain they are all dated for the following year. If any of these checks are payable to cash, officers, or banks, investigate the checks to ascertain that they are proper, have not been issued as a part of window dressing, and do not relate to the fiscal year under examination. Large checks for round amounts should receive particularly close scrutiny.

5. Perform the following procedures with respect to checks bearing a date or serial number showing that they were written before the close of the client's fiscal year:

   (*a*) Trace each check to the copy of the client's list of outstanding checks in the audit working papers. Be sure that each check is listed and that the correct amount is shown. This is the single most effective procedure for disclosing omissions or inaccuracies resulting in an understatement of outstanding checks. The procedure is, of course, based on the presumption that the payee of a check will normally cash or deposit the check as quickly as possible, and that as a result most checks outstanding at the balance sheet date are likely to clear the bank within a relatively short period of time after the balance sheet date. This presumption should hold true especially for large checks, which might materially misstate the cash figure if not properly included on the bank reconciliation.

   (*b*) Note on the list of outstanding checks those checks which have been paid by showing the date on which each check was paid by the bank, as was done on schedule A-2. A review of these dates should indicate whether the cash disbursements record may have been held open.

   (*c*) Trace the checks, on a test basis if desired, to the cash disbursements record to ascertain their agreement with that record as to date, number, payee, and amount.

6. Review the list of outstanding checks for any checks which did not clear the bank during the period covered by the cut-off statement.

Trace the amounts shown for these checks to the cash disbursements records to determine that the correct amounts have been listed as outstanding. If any of these checks are large in amount, also examine supporting data such as invoices to further evidence the correctness of the amount. In addition, discuss these large checks with the client to find out why they have not cleared. In some cases correspondence with the payee, in order to obtain further information, may be warranted. The need for such precaution stems from the possibility that the payee may be holding the check because the amount is in dispute. If so, there may be an additional liability which should be reflected on the client's records.

7. Prove the footing of the list of outstanding checks.

8. Review the list of outstanding checks in the working papers for the previous year's examination for checks which had not cleared the bank by the close of the examination. If these checks do not appear as outstanding at the close of the current year, they should be located in the client's files of checks paid during the current year. Inspect the checks, comparing the amounts with those shown by the outstanding check list, and noting that endorsements are proper and that no second endorsements are given. These checks should be accounted for because old outstanding checks are not likely to be presented for payment and therefore are the ones most likely to be dropped from the list of outstanding checks in order to conceal the theft of cash. Many companies, after checks have been outstanding a specified length of time, attempt to contact the payees and induce them to deposit the checks or to request duplicates if the originals have been lost. If such efforts are unsuccessful, the checks are then written back on the books and taken up as income or as a liability. This procedure reflects much better internal control than does permitting the checks to remain listed as outstanding.

Other reconciling items. If reconciling items other than deposits in transit or outstanding checks appear on the bank reconciliation, the auditor should satisfy himself that the items are valid, and have been properly shown. If the item first appears on the client's records, the auditor should ascertain that the item is recorded in the same amount by the bank in the following month or that the client's records are corrected in the following period. For instance, if the client properly prepared a check drawn on Bank A, but recorded the check as a withdrawal against Bank B, reconciling items for the same amount should appear on the bank reconciliations for both banks. When the check is finally paid the auditor should examine both the check and the original entry to verify the facts and should note that a correcting entry has been made in the following period.

Many reconciling items will first be recorded on the bank's records. If the bank has improperly charged a check to the client's account the error will be discovered when the client prepares the bank reconciliation. The bank will then issue an advice of correction in the following month. The auditor should note the original entry and satisfy himself that the proper correction appears in the bank statement for the following month, supported by the bank's correction advice. Service charges are another type of reconciling item which first appears on the bank's records. The auditor should inspect the bank's charge slip and then determine that the charge is recorded by the client in the following period. Technically, of course, the adjustment should be reflected in the period under examination, but when the amount is not material the auditor should waive the adjustment for practical reasons.

Timing. In the examination of cash, as well as in most other phases of an audit examination, part of the auditor's work can be performed in advance of the balance sheet date if internal control is satisfactory. The review of internal control is perhaps the most obvious procedure which can be handled readily on a preliminary basis. Imprest cash funds can also be counted beforehand, assuming the amounts are not material. If regular surprise counts are made by the internal auditor, the count of these funds may often be dispensed with by the independent auditor. He should, however, review the internal auditor's working papers to verify that satisfactory counts were actually made as stated. In any case, at the year end the independent auditor should inquire to determine that all imprest funds have been reimbursed and restored to their original amount.

Bank reconciliations for the principal bank accounts can also be verified on a preliminary basis. In addition to following all year-end procedures as described previously, the auditor should make any counts of cash, notes receivable, investments, and any other negotiable assets at the date of the preliminary bank reconciliation. The purpose of such simultaneous verification is, of course, to prevent the transfer of funds from one asset to another to conceal a shortage.

Even though a complete examination of cash in bank has been performed at an earlier date, certain additional procedures will be necessary at a later time. Entries to the cash accounts during the period from the date of the preliminary verification work to the year end should be reviewed for propriety and reasonableness and traced to source records if added verification is desired. The client's bank reconciliations at the balance sheet date should be reviewed and compared with the preliminary reconciliations. Bank confirmations for the balance sheet date should be obtained, and the bank balance

figure compared with the corresponding figure on the client's bank reconciliation. The book balance figure on the reconciliation should be compared with the corresponding figure in the grouping sheet in the auditor's working papers.

Other necessary procedures relating to year-end balances would include tracing of interbank transfers and investigation to determine that the proper cut-off of cash receipts and cash disbursements had been made.

DETAILED EXAMINATION OF CASH

Up to this point all objectives and procedures which have been discussed relate to the application of generally accepted auditing standards to a year-end examination of cash under conditions of good internal control. The remaining pages of this chapter are devoted to a discussion of the additional procedures which are commonly employed in making an extended cash examination when internal control is not adequate or when the client has specifically authorized the auditor to extend the scope of his examination because fraud is suspected. The main purpose of these additional procedures is to ascertain that all cash received has been accounted for and that all disbursements have been made for authorized business purposes and have been properly recorded.

The Techniques of Fraud

If the auditor is to be successful in ferreting out fraud when it exists, he must be well informed about the more common methods by which fraud can be accomplished. Only with such a background can the auditor know where to look and what to look for. He should also recognize that the extent of internal control is the principal factor to be considered in determining whether fraud is likely to have occurred. A trusted employee whose honesty has been "proved" is little protection against fraud when internal control has not been used to seal off opportunities for stealing funds and concealing the theft. A study by the Continental Casualty Company* has shown that the average dishonest employee has been employed over nine years before being discovered and was employed six and one-half years before beginning to steal. In one instance an employee began to steal after a twenty-nine year term of employment!

* *Crime Loss Prevention,* Rev. ed. (Chicago: Continental Casualty Company, 1948), p. 6.

Cash receipts can be abstracted and the resulting shortage concealed by any of the following means:

1. Withholding all or part of the proceeds of a cash sale and either recording no amount on the cash register or sales check or recording less than was actually collected. For instance, the customer's copy of a sales check made out for $10.00 is easily corrected to reflect an actual sale of $70.00 or $40.00.

2. Withholding collections from customers on accounts receivable, recording the collection, and concealing the resulting cash shortage by:

   (*a*) Underfooting the cash receipts column in the cash book and overfooting the sales discount column by a similar amount.

   (*b*) Recording discounts on collections when the full invoice amount was actually remitted because the discount period had expired.

   (*c*) Overstating cash disbursements. (See material below on cash disbursements.)

   (*d*) Manipulating the bank reconciliation by:

      (*1*) Overstating deposits in transit.

      (*2*) Understating outstanding checks.

      (*3*) Falsifying additions or subtractions on the reconciliation.

   (*e*) Kiting.

3. Withholding collections from customers on accounts receivable, making no book record of the collection at the time. The customer can be prevented from learning that he has not received credit by:

   (*a*) Withholding any statements or credit follow-ups which would normally be sent.

   (*b*) Lapping.

   (*c*) Subsequently placing a fictitious credit to the customer's account, indicating:

      (*1*) The account was written off as a bad debt.

      (*2*) A merchandise return or allowance was granted.

      (*3*) The account was paid. The records can be kept in balance by making an offsetting debit to a fictitious account receivable or by crediting the general ledger controlling account for receivables and debiting some general ledger account other than cash. As an alternative, no offsetting entry need be made and the trial balance of accounts receivable can be manipulated to conceal the lack of agreement with the accounts receivable control.

4. Recording sales on account at less than the correct amount but billing customer for the full amount. The difference can then be withheld when the account is paid.

Cash in petty cash funds and cash in bank can be obtained and the theft concealed by the following means:

1. Removing cash from the petty cash fund and either allowing the fund to remain short or:
   (*a*) Raising vouchers being submitted to the general cashier for reimbursement of the petty cash fund.
   (*b*) Writing fictitious vouchers, forging approvals.
   (*c*) Changing dates on vouchers which have previously been reimbursed and submitting them for a second reimbursement.
2. Preparing checks payable to self and forging the signatures or using blank checks which have been signed in advance. The paid checks are then destroyed when they are returned by the bank and cash credited to relieve the ledger account of the misappropriated funds by:
   (*a*) Overfooting cash disbursements and underfooting purchase discounts. If expenses are debited through the cash disbursements record, balance can also be maintained by overfooting expense totals.
   (*b*) Raising the entry for another check and also raising the amount of the check after it has been paid by the bank.
3. Preparing checks payable to others, forging the endorsements, and cashing the checks or depositing them in a special bank account opened for that purpose. Authorized signatures can be obtained on the checks by:
   (*a*) Submitting fictitious invoices and other supporting data.
   (*b*) Submitting invoices which have previously been paid. (The fraudulent check can be destroyed after it has been paid, and the original check substituted in its place, after changing the date and the number of the check.)
4. Overpaying a vendor's invoice and appropriating the vendor's refund check.
5. "Padding" the payroll by continuing to prepare checks for employees who have been terminated or by adding fictitious employees to the payroll. Endorsements can be forged on the checks when they are cashed.

Detection of Fraud and the Four-Column Bank Reconciliation

The reader should be able to devise procedures which will reveal most of the above forms of fraud. Some of these procedures will be performed in connection with the examination of accounts other than cash. The procedures relating specifically to the detailed examination of cash receipts and cash disbursements are usually performed in conjunction with the preparation of a four-column bank reconciliation. A simple example of this type of reconciliation is given below, and a more complete example appears on schedule A-3 at the close of this chapter.

	Balance November 30	*December Deposits*	*December Withdrawals*	*Balance December 31*
Transactions per bank	$2,800	$1,500	($1,800)	$2,500
Deposits in transit				
November 30	300	(300)		
December 31		250		250
Outstanding checks				
Checks written prior to December 1	(1,100)		900	(200)
Checks written in December			(700)	(700)
Transactions per books	$2,000	$1,450	($1,600)	$1,850

The reconciliation is usually prepared covering a period of one month, although a longer period can be used. The reader should note that reconcilement is effected between bank and book figures at the beginning and close of the period, as well as for receipts and disbursements during the period. Use of the form in connection with a detailed examination of cash for a given period has these advantages:

1. All balances, transactions, and reconciling items are logically arranged for review.
2. The figures in the reconciliation become the starting point for the specific verification procedures.
3. The source and disposition of every reconciling item is shown.

In preparing the reconciliation, the figures for the two balance columns are obtained from reconciliations prepared by the client. The figure for total deposits per bank can be readily determined by preparing an adding machine tape of the deposits shown on the bank statement. The figure for withdrawals per bank can then be inserted by "plugging" the difference to complete the line for transactions per bank. The figures for transactions per books should be

obtained from the general ledger account for the particular bank account being examined. Reconciling items originating or clearing through the columns for deposits and withdrawals can then be inserted as called for by changes in the reconciling items at the beginning and end of the period. For example, of the $1,100 in checks outstanding at November 30, only $200 remain outstanding at December 31. Therefore, $900 in checks must have been paid by the bank in December, and since these checks were entered in the books prior to December, the amount becomes a reconciling item in the column for withdrawals. To show that the amount is to be deducted from withdrawals per bank in order to reconcile to withdrawals per books, the amount is not encircled.

With the completion of the reconciliation form, the more important process of verifying the figures can begin. Each figure should be keyed to a description in the working papers of the actual verification work which was performed. The following are typical verification procedures:

BALANCES

1. Trace bank balances to the bank statement for the period involved. Also, carefully examine the bank statement for erasures or alterations. Request confirmation of the bank balances as an added precaution.
2. Verify book balances against the balances shown in the general ledger.
3. Prove the footing of all four columns of the reconciliation.

RECEIPTS AND DEPOSITS

1. Prepare an adding machine tape to obtain the total figure for deposits per bank. Note thereon the date each deposit was recorded by the bank and the date the cash was recorded on company records. Investigate any deposits not reaching the bank by the next business day.
2. Subtract from the total of the above tape the deposit in transit at the beginning of the period, and add the deposit in transit at the end of the period. The new total should agree with the recorded deposits per books, unless other reconciling items are present.
3. Obtain authenticated duplicate deposit tickets for one or more days' deposits, including the deposit at the close of the period, as a test for lapping. Compare each deposit ticket, item for item, with the recorded cash receipts items.
4. Prove the footings of all columns of the cash receipts book for one or more days.
5. Trace the recorded cash receipts, for the days selected under

item four, to documents supporting the individual entries. Such documents may include customers' remittance advices, carbon copies of cash receipts forms, cash register tapes showing totals for the day, cash register reconciliation forms showing resulting cash overages or shortages, and adding machine tapes totaling sales checks issued for the day. In the last instance, the sales checks should be re-added to prove the validity of the client's tape, and all sales check numbers should be accounted for, beginning with the last number of the previous day and ending with the first number of the following day.

6. Verify sales discounts taken by customers during the period under review. Calculate the amount of the discount to which the customer is entitled, and by reference to the original sales invoice or the debit entry in the customer's account, determine that payment was made within the discount period.

DISBURSEMENTS

1. Ascertain that all checks paid by the bank during the period are present.

(*a*) Prepare an adding machine tape of the checks, and balance the total with the figure for bank withdrawals in the bank reconciliation form. This proof of disbursements per bank, coupled with certain other procedures stated below, obviates the need to prove the footing of the client's cash disbursements record. In preparing the tape of the checks, a subtotal should be taken after listing the last of the checks written prior to the period being examined. This subtotal will be the source of the figure for checks outstanding at the beginning of the period but paid during the period (the figure of $900 in the sample reconciliation presented earlier).

(*b*) Inspect the payment date perforated into each check to determine that the check was actually paid during the period under examination.

2. Trace to the list of checks outstanding at the beginning of the period each check paid during the period which was issued prior to the period. Ascertain that each of these checks is listed correctly and that none has been omitted from the list of outstanding checks. Place a tick mark alongside each amount so verified on the list of outstanding checks.

3. Verify against the cash disbursements record the amount of each outstanding check not shown as paid in the preceding step, and trace the amount to a copy of the client's list of checks outstanding

at the close of the period. Every outstanding check not paid during the period *must* be shown as outstanding at the end of the period.

4. Compare each check paid during the period with its cashbook entry as to date, number, payee, and amount, and determine that the check bears an authorized signature, is properly endorsed, and that any second endorsements can be reasonably explained. For each check written during the period being examined, place a small tick mark alongside the appropriate entry in the cash disbursements record.

5. Trace the amount of each cash disbursements entry not tick-marked as a result of the previous step to the list of checks outstanding at the close of the period, noting that each unpaid check is listed correctly and that none has been omitted. (These five procedures will establish the validity of the client's list of outstanding checks at the close of the period.)

6. Prove the footing of the list of outstanding checks at the close of the period, and ascertain that the total agrees with the corresponding figure in the bank reconciliation form.

7. Account for all check numbers, commencing with the last check issued at the close of the previous period and ending with the first check issued at the beginning of the following period. Inspect all voided checks, making certain that the checks have been mutilated to prevent their use. Any check numbers not represented by paid or voided checks *must* be listed as outstanding at the close of the period.

8. Determine (usually on a test basis) the validity of the disbursements listed in the cash disbursements record during the period by examining invoices, receiving memos, payroll records, or other supporting documents.

(*a*) The vendor's name and the amount on each invoice should agree with the corresponding entry, and the invoice should be addressed to the client.

(*b*) Each invoice should be noted for any evidence that it may have been paid previously; hence an invoice bearing an old date should always be regarded with suspicion.

(*c*) Invoices should bear evidence that required approvals were given.

(*d*) Any disbursements to officers, employees, or banks should receive particularly close scrutiny.

(*e*) Reimbursements to petty cash funds should be reviewed in detail: supporting vouchers should be totaled and inspected for propriety and necessary approvals.

If the procedures which have just been discussed are thoroughly understood and carefully applied, they will result in an adequate examination of cash designed to assure that (a) cash receipts have been fully accounted for, that (b) cash disbursements have been made only for authorized and valid purposes, and that (c) cash balances are intact. As has been previously pointed out, such procedures should be used to supplement the year-end verification of cash for balance sheet purposes only when internal control is weak (creating opportunities for fraud) or when the additional verification is specifically requested by the client.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of cash in *Case Studies in Auditing Procedure*, Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Cash	$ 55,000
Total current assets	453,000
Total current liabilities	173,000
Total assets	565,000

All cash is handled through two general bank accounts and an imprest bank account which is used for the disbursement of dividends. Incoming mail is opened by the assistant secretary and credit manager. He segregates all checks received and matches those in payment of accounts receivable against a file of unpaid invoices. The matched invoices are then filed with the daily cash records. He also prepares a form covering miscellaneous cash receipts. The checks and other data are turned over to the bookkeeper who prepares the deposit ticket and makes the deposit. The bookkeeper also prepares all disbursement checks and enters them in the disbursement records. Two officers must then sign the checks to validate them. The bookkeeper has charge of the petty cash fund.

In view of the weakness of internal control the auditor was engaged to do certain quarterly auditing work. One month was selected in each quarter and the following verification work performed. The daily figures for total cash received were traced to the bank statement, and the details of the duplicate deposit tickets supporting these totals were compared with the duplicate sales invoices and miscellaneous receipts forms for possible evidence of lapping of cash receipts. Paid checks returned with the bank statement for the month being examined were compared with the record

of cash disbursements and examined for proper signatures and endorsements. Bank reconciliations were then prepared based on the reconciling items revealed by the above examination. The clearing of these reconciling items was verified in connection with the next quarter's examination. Bank balances were confirmed with the depositories.

The cash books were footed for each of the months selected for examination, and the totals were traced to the related general ledger entries. All bank transfers were traced to deposit and withdrawal entries. Entries in the voucher register reflecting liabilities incurred were traced to supporting invoices and other related documents, as discussed under the material pertaining to the examination of the income statement (Chapter 15).

The month of December, the last month of the fiscal year, had always been examined as described above. Reconciling items at December 31 were verified against a cut-off statement covering the first fifteen days of January. For paid checks returned with the cut-off statement, bank cancellation dates were examined for any indication that the checks were not issued prior to the close of the year. Checks clearing with the cut-off statement and recorded by the client in January were reviewed to ascertain that they were not dated or circulating prior to the end of the year. Reconciling items not clearing with the cut-off statement were investigated for any indication of irregularity.

In any quarter in which a dividend was paid, the paid checks were compared with the entries in the separate cash book maintained for dividend disbursements. Larger checks were also verified against a list of stockholders maintained in the audit work papers. The dividend account was reconciled at the end of each quarter and reconciling items were accounted for in the following quarter. Old outstanding checks were discussed with the president.

The imprest petty cash fund was counted during each quarterly examination, and petty cash vouchers supporting reimbursement of the fund were examined in connection with the vouching of entries in the voucher register for one month of each quarter.

Case B (Loading and Hauling Equipment Manufacturer)

Cash	$ 250,000
Total current assets	2,491,000
Total current liabilities	1,842,000
Total assets	3,438,000

Five bank accounts are maintained in three banks. Three of the accounts are used for general purposes, one is for savings bond deductions, and one is for payroll. The system of internal control over cash is quite good and includes the following features. Cash receipts are pre-listed and an independent comparison of the pre-list with cash book entries is

made. Separate employees make cash book entries, prepare the deposit tickets, and post to the ledgers. All disbursements, except minor petty cash items, are made by use of prenumbered checks. Vouchers are audited and approved for payment by a voucher clerk who has neither purchasing nor disbursing responsibilities, and the vouchers and supporting data are mutilated when paid. Payroll controls include approval of wage rates by the factory superintendent, comparison of hours shown by clock cards with job tickets, and distribution of payroll checks by employees other than those who prepare the payroll or write the checks. Unclaimed wages are turned over to the controller's office.

The audit verification work included a detailed audit of cash transactions from December 1 to January 6. The client's November 30 bank reconciliations were used as a starting point, after being footed and compared with bank and book balances. In connection with the verification work, four-column bank reconciliations were prepared, beginning with December 31 balances and ending with January 6 cut-off balances. The December 31 and January 6 bank statements were proved, and all deposits were compared with the cash book as to date and amount, noting any delays in the deposit of cash. Checks paid during the audit period but dated prior to December 1 were traced to the November 30 bank reconciliation. Checks dated December 1 or later were traced to the record of cash disbursements, and lists were prepared of all checks still outstanding at December 31 and January 6. Checks issued prior to December 1 and still outstanding at January 6 were traced to the record of cash disbursements and to supporting details. Checks representing transfers of bank funds for the period December 1 to January 6 were traced to deposits on the bank statements, noting the lapse of time between the date of the check and the date of the deposit.

Invoices supporting cash disbursements for the period December 1 to January 6 were examined for propriety, approvals, distribution of the debits to proper accounts, and mutilation to show payment had been made. Payrolls for the two weeks ended December 28 were also examined in support of cash disbursements. Supporting data, computations, and postings from the payroll distributions were verified. Standard bank confirmation forms were obtained covering all balances on deposit at December 31, and the banks were requested to send the January 6 bank statements and paid checks directly to the auditor.

Cash on hand at the beginning of the audit on January 6 was counted. The amount in the petty cash fund was compared with the ledger balance of the petty cash fund, and the undeposited receipts of the previous day were deposited in the auditor's presence. Subsequent investigation was made to determine whether any of the deposited checks had been charged back as uncollectible.

Case C (Department Store)

Cash	$ 750,000
Total current assets	4,300,000
Total current liabilities	1,300,000
Total assets	5,600,000

Cash received on the sales floor is recorded on cash registers. Window cashiers receive collections on accounts receivable and record them on special registering machines which issue a duplicate receipt, one copy of which is given to the customer, the other copy being used by the sales audit department to establish control totals. Mail receipts are transmitted by the mail opening department to the window cashiers, who then handle them the same as over-the-counter collections. Cash registers are read and cleared nightly by employees who are not connected with the sales force or the cashier's office. The sales audit department establishes totals from the cash register tapes and compares these with the cash turned over to the general cashier. An outside agency is employed to detect failures to ring up sales. Except for coin and currency held over to meet the needs of the next day's business, all cash received is deposited on the next business day. The accounting department compares the cashier's report of each day's deposit with the reports of the sales audit department and other departments which compile independent figures on cash receipts.

Check disbursements are made by means of a voucher check originated by the accounts payable department. Checks are signed by a special machine which prepares a tape listing of all checks signed. These tapes and duplicate copies of the voucher check become the check register. Customers' refunds and damage claims are paid in currency by the general cashier, and twice a week supporting documents are forwarded to the accounting department for reimbursement by regular voucher check. Payrolls are computed in the payroll office from addressograph plates kept current by notices of changes from the employment office and from records of hours worked, prepared by the timekeeping department from employees' clock cards. A check is drawn for the total payroll, cashed by the general cashier, and pay envelopes stuffed by the cashier's office are released to the paymaster for distribution to the employees.

Bank statements and paid checks are delivered directly to the accounting department, where the bank accounts are reconciled.

The auditor's review of the system of internal control was made several months prior to the end of the year. Through inquiry, and through the detailed study of fifty check disbursements selected at random from transactions of the fiscal year under review, the auditor satisfied himself that

1. Vouchers approved for payment were supported by the appropriate documents and necessary approvals for receipt of goods, prices, and buyer's authorization.
2. To prevent their re-use, invoices were cancelled after being approved for payment.
3. No checks were made payable to bearer or to cash.
4. Transfers between banks were recorded simultaneously.
5. Checks agreed with supporting documents as to payee and amount.

Check disbursements for customer refunds for one day were examined for approvals, evidence of the return of the merchandise, and any indication that the refund might previously have been paid by currency. Also, one reimbursement of cash disbursements made by the cashier was examined to determine that all supporting disbursement vouchers were present, had been properly approved, and were cancelled to prevent re-use. Payroll disbursements were tested by verifying hours worked and commissions earned for ten employees. Payroll rates for fifty employees were traced to payroll authorizations in the employment office. The payrolls for five departments were footed and cross-footed, and the total payroll for one month as shown by payroll department records was reconciled with general ledger totals.

By inquiry the auditor ascertained that bank reconciliations were prepared by employees independent of the cashier's office. The cash disbursements book for one month was footed, and totals were traced to general ledger postings. Cash disbursements per bank statement were reconciled with total disbursements per cash book for one month.

Verification work at the year end included a count of cash on hand, necessitated by the large amount of cash on hand ($75,000). The count was not begun until the deposit had been prepared covering the receipts of January 31. The auditor did not count the deposit, but he inspected the checks included for any which appeared unusual. The deposit was then placed in a pouch which was sealed by the auditor and controlled by him until the deposit reached the bank. The bank was requested to notify the auditor as to whether the amount of funds agreed with the deposit ticket total and whether any checks were uncollectible.

Actual counting of the cash on hand was done by company employees, with the auditor observing. About five hundred change bags containing the individual cash register change funds were on hand in the cashier's vault. During the year each of these funds had been counted two or three times by employees in the cashier's office who counted a few of the change bags each day. The auditor ascertained that all bags were accounted for at the time of beginning his count and then had the company employees count 20 per cent of the bags selected at random. As to money

in the cashier's fund, no count was made of coins in rolls which had been prepared by outsiders. For coins wrapped by the client and bundled currency, company employees test-counted the rolls and bundles to the following extent:

$.01–1 %	$ 1.00–4 %
.05–2	2.00–7
.10–4	5.00–10
.25–10	10.00–20
.50–10	20.00–50
	50.00–50
	Over 50.00–100

In connection with the cash count, the last check number issued on January 31 was noted to establish the cut-off of cash disbursements.

As to cash in bank, the client's January 31 bank reconciliations were obtained. These were footed by the auditor, the bank balances compared with a confirmation obtained directly from the bank, and the ledger balances traced to amounts in the auditor's trial balance. The cut-off bank statements, sent directly to the auditor by the bank, were for the entire month of February. The deposit in transit was traced to the cut-off statement and reconciled with the cash receipts for January 31 as shown by the cash book. Checks paid by the bank in February, dated prior to February 1, and of the amount of $50 or over were traced to the client's list of outstanding checks. Checks of $250 or more were also compared with the duplicate copies of the voucher checks. Checks of substantial amount which did not clear with the cut-off statement were investigated to determine that no irregularity was involved. For checks of substantial amount which had not cleared the bank at the close of the previous audit, the paid checks were examined if the checks did not appear on the current reconciliation.

Machine Products Co.

Cash Summary

Audit 12/31/56

	Index	Balance per Books 12/31/56	Adjustments & Reclassifications Dr. - (Cr.)	Final Balance 12/31/56
Petty cash	A-1	500 00		500 00
Farmers' National Bank-Gen. A/c	A-2	342 106 18		342 106 18
Farmers' National Bank-Payroll A/c	A-4	5 000 00		5 000 00
City National Bank, Chicago	A-5	76 415 89		76 415 89
		424 022 07		424 022 07

Detailed audit, Farmers' National Bank-Gen. A/c for September. A-3

Machine Products Co.
Petty Cash Count - As of 1/10/57

Audit 12/31/56 — 1/10/57

	Number	Denomination	Amount	Total
Currency:				
	1	$ 20.00	20.00	
	3	10.00	30.00	
	11	5.00	55.00	
	19	1.00	19.00	
Coins:	14	.50	7.00	
	2 rolls @ $10.00	.25	20.00	
	7	.25	1.75	
	38	.10	3.80	
	1 roll @ $2.00	.05	2.00	
	28	.05	1.40	
	32	.01	.32	160.27
Postage stamps:	87	.03	2.61	
	42	.01	.42	3.03
Memo: December disbursements submitted for reimbursements 1/4/57				236.52 X

January disbursements:

Paid to:	For	Amount	
Ace Window	Window cleaning	14.50 N	
Office Supply Co.	Inks, paper clips	1.53 N	
J. Barker	Cab fare	1.25 N	17.28
Checks:			
Check payable to Petty Cash dated 1/6/57, signed J. D. Perkins			80.00
Total			497.10
Petty cash fund balance per general ledger			500.00 to A
Fund short			2.90 Pass not material

The above cash and cash items totaling $497.10 were intact in my possession after count by representative of Block + Decker. P.S. Ordby, 9:25 AM 1/10/57
(Office Manager)

N Supported by receipts or bills approved by J. K. Moore

X Examined reimbursement voucher, approved by P.A. Workman, entered in voucher register 12/31/56.

The disbursement vouchers and check included in the above fund have been reviewed by me and are all proper items. The shortage is known to exist and will be reimbursed in January. H.D. Douglas Treas.

Machine Products Co
Bank Reconciliation as of 12/31/56
Farmers' National Bank - General account

12/31/56

Balance per bank, 12/31/56		361,819.41 ✓ OK per A-2
Add:		
Deposit in transit, date per {Books 12/31 ✓ / Bank 1/2 ✓}		27570.87 ✓
December bank charges, date per {Books 1/5 ✓ / Bank 12/29 Ⓝ}		14.29 Ⓝ ✓
Total		389,404.57
Less:		
Outstanding checks		47,298.39 ①
Balance per books, 12/31/56		342,106.18 ✓
		to F A

F - Footed

Ⓝ - Traced to cut-off statement obtained directly from the bank

✓ - Traced to general ledger

Ⓝ - Traced to December bank statement, debit memo examined

✓ - Amount verified by reference to corresponding entry in clients' cash disbursements record

Cut-off statement through Jan. 15 was obtained directly from the bank. All checks were examined for predating, and checks dated in December or prior were traced to the list of outstanding checks at December 31.

Outstanding checks which had not cleared during the audit at 12/31/55 were all paid during the year and the paid checks were examined and compared with the amount shown as outstanding.

Tape prepared from client's list of o/s checks

Check #		.00 T	Paid Jan
3418		1 4 2 1 9	✓
3591		5 6.9 1	✓
3612		6 4 1.7 5	5
3621		3 2 4.4 3	2
3623		2,0 2 5.6 9	3
3624		6 8.2 3	12
3627	1	5,5 6 3.6 3	4
3628		2,0 4 1.0 4	4
3629		4 7 9.3 1	6
3632		6,2 9 4.5 5	3
3633		8 1 5.6 9	7
3634		2,0 0 0.0 0	5
3637		3,9 2 3.1 2	4
3638		8,5 3 2.4 5	6
3639		3,9 3 3.1 5	4
3640		4 5 6.2 5	13
	4	7,2 9 8.3 9 T	
		①	

STANDARD BANK CONFIRMATION FORM - 1953

Approved 1953 by,
AMERICAN INSTITUTE OF ACCOUNTANTS
NATIONAL ASSOCIATION OF BANK AUDITORS
AND COMPTROLLERS

DUPLICATE
To be mailed to accountant

January 11, 1957

Dear Sirs:

Your completion of the following report will be sincerely appreciated. If the answer to any item is "none", please so state. Kindly mail it in the enclosed stamped, addressed envelope direct to the accountant named below.

Report from

(Bank) Farmers' National Bank

111 Broadway

Wichita, Kansas

Yours truly,

Machine Products Co.

By H. A. Cassand
Authorized Signature

Bank customer should check here if confirmation of bank balances only (item 1) is desired. ☐

Bank should check whichever is applicable:
This report covers all accounts
1. with this office ☒ or
2 with this office and all other domestic offices ☐

Name of accountant

Black and Decker, Certified Public Accountants
234 Baltimore
Kansas City, Missouri

Dear Sirs:

1. We hereby report that at the close of business on December 31 19 56 our records showed the following balance(s) to the credit of Machine Products Co.

AMOUNT	DESIGNATION OF ACCOUNT	REMARKS: IS BALANCE SUBJECT TO WITHDRAWAL BY CHECK?	REMARKS: DOES ACCOUNT BEAR INTEREST? GIVE RATE
$361,819.41	General Account	Yes	No
7,241.80	Payroll Account	Yes	No

2. We further report that the above mentioned depositor was directly liable to us in respect of loans, acceptances, etc., at the close of business on that date in the total amount of $100,000 , as follows:

AMOUNT	DATE OF LOAN OR DISCOUNT	DUE DATE	INTEREST: RATE	INTEREST: PAID TO	DESCRIPTION OF LIABILITY, COLLATERAL, LIENS, ENDORSERS, ETC
$ 100,000	11/1/56	5/1/57	5%	----	Unsecured

3. Said depositor was contingently liable as endorser of notes discounted and/or as guarantor at the close of business on that date in the total amount of $ None , as below:

AMOUNT	NAME OF MAKER	DATE OF NOTE	DUE DATE	REMARKS
$				

4. Other direct or contingent liabilities, open letters of credit, and relative collateral, were

None

Yours truly,

(Bank) Farmers' National Bank

Date January 13, 1957

By J. D. Vicks
Authorized Signature

If the space provided is inadequate, please enter totals hereon and attach a statement giving full details as called for by the above columnar headings

Machine Products Co
Farmers' National Bank - General Account
Audit and Reconciliation of Transactions for September, 1956 R.B
Audit 12/31/56 12/11/56

	Balance 8/31/56	September Deposits	September Withdrawals	Balance 9/30/56
Transactions per bank	388291 54 n (1)	806719 52 (2)	745261 83 (2)	449749 23 n (1)
Deposits in transit				
Per Books 8/31 ✓	37658 746	37658 746 n		
Per Bank 9/1 n				
9/29 ✓		32427 83 (4)		32427 83 n (4)
10/2 n				
Outstanding checks				
Issued prior to September	61750 86 (2)		61 608 67 (2)	142 19 (5)
Issued in September			67075 93 (2)	67075 93 (2)
Bank Charges				
Charged by Bank, Entered in Books	12 56 n			
8/29 n 9/6 ✓			12 56 ✓	13 04 n
9/28 n 10/7 ✓			13 04 ✓	
Check drawn on City National Bank				
Credited by Client to Farmers' National Bank corrected 10/17 (3)			15000 00 ✓	15000 00 ✓
Customer's check charged back by bank 9/4, redeposited without entry 9/15		462 18 (1)	462 18 n	
Transactions per books	364211 98 ✓ F	801 026 43 ✓ F	765 266 43 ✓ F	399971 98 ✓ F

n Traced to bank statements for September or October
✓ Traced to general ledger
F Footed
(1) O.K. per bank confirmation A-3/2
(2) Supporting detail tapes on A-3/1
(3) Also appears as reconciling item on reconciliation for City National Bank A-6
(4) Obtained authenticated duplicate deposit ticket - see A-3/3

Accounted for check numbers 3420 to 3505 used in September
Traced all September disbursements in excess of $500 to supporting invoices, etc.
Footed cash receipts record for the month of September

Machine Products Co.

Farmers' National Bank - General Account

Detail Tapes in Support of Bank Reconciliation

Audit 12/31/56

R.B. 12/11/56

Checks o/s Aug. 31

No.							Pd Sep.
3385		5	4	7.5	5	3	
3390		4	7	4.4	4	6	
3397	2,5	3	3	7.8	4	4	
3400	4,4	3	7	7.4	1	0	
3408	1 3,2	5	4	1.6	5	5	
3409	3,4	5	2	1.6	1	5	
3410		8	0	4.6	9	7	
3412	5,5	8	9	9.4	1	2	
3413	4,7	7	0	7.9	8		
3416	2 1,2	3	1	3.2	6		
3417	1,4	6	9	6.5	2	3	
3418		1	4	2.1	9	①	
3419	3,0	4	2	4.5	1	9	
	6 1,7	5	0	8.6	9	T	

to A-3

Checks o/s Sept 30

No							.0 0 T
3418		1	4	2.1	9	✓	
3472		5	6	9.5	0	✓	
3483	4,3	3	4	5.5	5	✓	
3484	7,0	3	0	3.4	4	✓	
3486	1 4,4	7	7	3.9	9	✓	
3487	7,6	7	4	5.2	5	✓	
3488	5,6	8	4	5.3	3	✓	
3499	1 0,2	2	5	6.3	3	✓	
3500	8,4	0	0	4.3	3	✓	
3501	2,3	4	7	8.3	3	✓	
3502		4	3	1.5	5	✓	
3504	2,3	4	2	1.4	4	✓	
3505	3,5	5	7	5.2	4	✓	
	6 7,2	1	8	1.2	T		
	− 142.19						
	67,075.93						

to A-3

Tape of September Deposits per Bank

Date Books	Bank						
8/31	9/1	3	7,6	5	8.7	4	
9/1	4	4	3,2	6	8.6	2	
4	5	3	9,6	5	8.3	7	
5	6	4	1,3	7	1.1	4	
6	7	4	0,8	8	1.3	7	
7	8	4	2,6	7	3.7	3	
8	11	4	6,3	5	1.7	3	
11	12	3	5,3	5	8.3	1	
12	13	3	8,5	6	3.6	3	
13	14	4	1,8	7	0.7	7	
14	15	4	2,0	3	0.5	5	
15	18	4	4,0	5	2.7	5	
18	19	3	7,6	5	0.7	1	
19	20	4	0,0	4	5.6	2	
20	21	3	9,6	6	3.6	3	
21	22	3	7,9	2	2.5	5	
22	25	4	6,1	3	3.2	8	✓
25	26	3	8,4	8	2.6	2	✓
26	27	3	5,6	4	4.2	9	✓
27	28		8,4	7	2.6	3	✓
28	29	2	8,9	6	4.4	8	✓
		8	0 6,7	1	9.5	2	T

to A-3

① Traced to September 30 list of o/s checks and to December 31 list — see A-2.

② All checks perforated as paid in September, and signed by H.A. Onsgard, Treasurer. Inspected endorsements and traced date, Number, Payee, and Amount to check record.

↳ Agrees with amount shown by check record.

✓ Duplicate deposit tickets obtained covering these deposits and compared in detail with cash receipts record. See A-3/3

Checks paid by bank in September

Checks issued prior to September

		5	4	7.5	5		
		4	7	4.4	4		
	2,5	3	3	7.8	4		
	4,4	3	7	7.4	4		
1	3,2	5	4	1.6	6		
	3,4	5	2	1.6	5		
		8	0	4.6	9		
	5,5	8	9	9.4	4		
	4,7	7	0	7.9	4		
2	1,2	3	1	3.2	2		
	1,4	6	9	6.5	2		
	3,0	4	2	4.5	4		
6	1,6	0	8	6.7	5		

to A-3

	2,0	3	2	5.4	4		
3	4,5	3	2	4.4	0		
1	5,9	0	4	6.4	0		

		3	4	2.2	4		
	2,3	6	2	3.3	2		
2	3,4	2	3	5.5	0		
	6,5	5	7	4.4	4		
		7	4	5.6	3		
②	7 4	5,2	6	1.8	3	T	

to A-3

Review Questions

1. In what ways do the problems of satisfactorily verifying the cash account differ from those encountered in verifying most other accounts?

2. As an indication of the importance of cash, the audit program will normally require the expenditure of a fairly substantial amount of time for its verification, and yet the work is likely to be entrusted to the lowest-ranking man available. How can this apparent inconsistency be justified?

3. What are the principal protective devices to assure proper handling of petty cash funds?

4. What types of items is the auditor likely to find in the petty cash fund?

5. What is the most conclusive test of the worth of checks which make up part of the balance of a petty cash fund?

6. In addition to counting the petty cash fund, what other audit procedure should the auditor employ if he is concerned about detecting employee irregularities in handling the fund?

7. How is it possible for the auditor to verify undeposited receipts as of the balance sheet date without being on hand to count the cash?

8. Why is the auditor interested in verifying the cash "cut-off"?

9. What work, in addition to verifying the balance of cash on deposit at the year end, must normally be done if internal control is weak?

10. What are the objectives of a good system of internal control over cash?

11. In many restaurants the guest check prepared by the waitress establishes the accounting control over cash receipts collected by the cashier. What steps must a third person take to make the control effective?

12. Why should each day's cash receipts be deposited daily and intact?

13. What are the advantages of disbursing by check rather than by cash?

14. What safeguards should be instituted to assure maximum protection in the making of disbursements by check?

15. Why is the bonding of employees an important element in good internal control?

16. Describe the various types of reports relating to cash and cash requirements which are likely to be needed to afford adequate control of cash in a large business.

17. Having cash received by mail pre-listed by someone in the mail department before releasing the cash items to the cashier is suggested as being preferable to having the items delivered unopened directly to the cashier. Justify this contention.

18. List seven different types of items which may have to be excluded from cash to assure that financial statements meet accepted standards of presentation.

19. What are the auditor's objectives in making an examination of cash, when the purpose of the examination is to enable the auditor to express an opinion on a client's financial statements?

20. What are the two principal means by which the auditor determines whether the cash receipts book has been held open?

21. Do large disbursements at the end of the year and a low balance of ac-

counts payable necessarily mean that the cash disbursements record has been held open? Explain.

22. Explain what is meant by lapping.

23. By what means can the auditor disclose the existence of kiting?

24. What records will the auditor have to obtain from the client in order to prepare and verify a four-column bank reconciliation?

25. Of what value is an authenticated duplicate deposit ticket to the auditor?

26. The auditor "examines" checks paid by the bank in support of disbursements recorded in the books. Explain in detail how the auditor "examines" the checks.

27. How does the auditor verify deposits in transit and outstanding checks on a year-end bank reconciliation?

28. Why does the auditor prepare a schedule of interbank transfers?

29. When checks are included in cash on hand, what points should the auditor watch if he "counts" the checks?

30. What information is a bank requested to supply on the Standard Bank Confirmation Form?

31. Why should the auditor examine all checks listed as outstanding at the close of the previous year, but which were paid after the completion of the previous audit?

32. If the auditor verifies all bank reconciliations at a preliminary date, what additional steps should be performed as of the balance sheet date with respect to cash in bank?

33. If a collection from a customer is recorded but withheld from the day's cash deposit, by what means can the resulting shortage be concealed?

34. When verifying a four-column bank reconciliation, how does the auditor satisfy himself that he has been given all checks paid by the bank during the period covered by the reconciliation?

35. How does the auditor proceed in accounting for all checks issued during the period covered by the four-column bank reconciliation?

Questions on Application of Auditing Standards

36. Is the "defalcation approach" to cash essential to an examination intended to be adequate for permitting the auditor to express an opinion on a client's financial statements? Explain.

37. When the auditor cannot be present to count the undeposited cash receipts at the end of the year which comprise the deposit in transit, how can he be certain that the deposit when made did not include subsequent receipts added to make up for a cash shortage?

38. Why does controlling undeposited receipts to the bank offer the auditor more positive verification than checking out an authenticated duplicate deposit ticket?

39. Does the amount of internal control affect primarily the auditor's verification of the year-end cash balance or his verification of transactions during the year? Explain.

40. Suggest a reason for the suggestion that in preparing the four-column bank reconciliation the auditor add up the deposits on the bank statement and "plug" the difference to get withdrawals, rather than add the withdrawals and plug the deposit figure.

41. Why is the client required to sign the Standard Bank Confirmation Form?

42. What procedures in connection with verifying the four-column bank reconciliation will reveal the fact that a check charged on the bank statement for the period under examination has been abstracted from the accompanying file of paid checks?

43. Outline audit procedures to verify sales discounts taken on bills paid within ten days of date of sale, for the month of November.

44. What forms of manipulation are each of the following procedures designed to detect?

(*a*) In connection with the current audit, account for all checks outstanding at the close of the audit for the preceding year which did not clear the bank by the completion of the audit.

(*b*) Investigate large checks outstanding at the audit date and not clearing the bank with the cut-off statement for the subsequent period.

(*c*) Compare daily deposit totals per books and per bank for the last week of the year.

(*d*) Compare all checks returned with the cut-off bank statement and dated on or before the audit date with the list of outstanding checks at the audit date.

(*e*) Note the length of time required by the checks examined under (*d*) to clear the bank.

(*f*) Examine checks clearing the bank during the subsequent period for endorsements which predate the date of the check.

(*g*) Obtain directly from the bank the cut-off statement for the subsequent period.

45. An auditor in making his cash count at December 31 discovered that the cashier had not yet balanced his records or made up the daily deposit. Cash on hand included both currency and checks. No other cash or negotiable instruments were held by the company. The auditor recorded his count of the cash, totaling $15,394.72, and released the cash to the cashier.

The cashier's fund was $5,000, and the auditor subsequently noted a bank deposit dated January 2 on the January bank statement in the amount of $10,394.72, whereupon he concluded that he had satisfactorily verified all cash on hand.

(*a*) What opportunities were open to the cashier as a result of the manner in which the auditor made the examination?

(*b*) What should the auditor have done?

46. The treasurer of the Voorhees Company insists that the invoices supporting checks which he is to sign be marked "paid" before they are presented to him. What is his apparent reason for the request that the invoices be marked "paid"? Is the method effective?

47. The bookkeeper-cashier of the Astor Company made the regular record of cash received but withheld $250 for his own use when he made the bank deposit. To cover up the funds he abstracted, an entry was made in the cash disbursements book with a debit to office equipment, but there were no supporting data for the disbursement, and the check bearing the number shown in the cash dis-

bursements book was destroyed. Give any audit procedures which would reveal this manipulation to the auditor.

48. Preparation of checks, recording disbursements, and reconciling the bank account are all handled by J. M. Carter of the Cordo Company. Carter notes that a check for $100 has been outstanding for over one year and probably will not be cashed. He therefore takes a check from the back of the checkbook and writes it payable to himself for $100, forges the treasurer's signature, cashes the check, and attempts to conceal the disbursement by omitting the original check from the list of outstanding checks on subsequent reconciliations and destroying the fraudulent check.

(*a*) What is the principal internal control weakness which should be corrected?

(*b*) What audit procedures would disclose the manipulation?

49. An auditor's unqualified opinion on a client's financial statements may be taken to mean that insofar as the auditor could reasonably determine, all cash receipts and disbursements for the period have been properly accounted for. Do you agree? Explain.

50. An auditor is engaged to make an examination as of December 31 on the following January 10, and begins the examination on that date. The client has substantial excess funds invested in marketable securities. What departure from the normal auditing procedures would be necessitated by the facts stated?

Problems

51. The Jackson Co. sells on a 2/10, n/30 basis. Internal control is quite weak, so the senior accountant in charge of the examination of the company's financial statements asks you to make a careful review of the cash receipts book for the month of July, which is reproduced below. You are asked to summarize any discrepancies you may note on a work sheet, and to prepare an adjusting entry for any corrections that may be necessary.

Cash Receipts

Date	*Account*	*Item*	*Cash*	*Cash Sales*	*Discount*	*Accounts Receivable*
7/2	Adams	6/10 invoice	$1,300			$1,300
7/5	Baker	6/24 invoice	784		$16	800
7/6	Cash sales		50	$50		
7/10	Carson	6/30 invoice	588		12	600
7/11	Cash sales		25	25		
7/12	Baker	7/1 invoice	294		6	300
7/13	Cash sales		32	32		
7/14	Adams	7/3 invoice	877		23	900
7/15	Cash sales		38	38		
7/16	Baker	7/1 invoice	686		14	700
7/18	Cash sales		30	30		
7/20	Carson	7/9 invoice	578		12	600
7/22	Cash sales		27	27		
7/27	Baker	7/16 invoice	490		10	500
			$5,789	$192	$103	$5,700

52. The senior accountant in charge of the engagement to which you are assigned (The Anderson Company) hands you the following ledgers, journals, and other records and instructs you to make a thorough review of the December transactions and the December 31 and November 30 bank reconciliations. He cautions you that the audit is being made because fraud is suspected on the part of the bookkeeper-cashier, and that therefore you should be extremely alert.

You may assume that the books (ledger and journals) correctly reflect all transactions of the business which took place up to and including November 30. Thus the cash account shows the amount of cash for which the bookkeeper-cashier is accountable at November 30. Also, there have been no bank errors. The bank statement at all times reflects the amount on deposit for which the bank is legally liable. All sales are made on account, and all disbursements are first recorded as a liability through the voucher register.

Should you find any discrepancies you are to prepare a report, *in form for typing, which will be delivered to C. D. Anderson,* owner of the business. The report should give

1. A description of each and any discrepancy found, and the total of the discrepancies if there is more than one.
2. Any adjusting entries that should be made, assuming the books have not been closed.

Bank Reconciliation 11/30

Balance per bank			$2,398
Outstanding checks	#124	$10	
	#126	12	
	#127	9	
	#128	5	31
			$2,367
Deposits in transit		$25	
		20	45
			$2,412

Cash Receipts—December

Date	*Amount*
12/2	$32
12/5	19
12/17	18
12/29	24
12/31	30
	$93

Check Record—December

Number	*Amount*
129	$ 25
130	20
131	30
132	19
133	28
134	14
135	10
136	5
137	17
138	23
139	19
140	8
	$246

Cash Account—December

12/1	Balance	$2,412	12/31	Checks	$ 246
12/31	Deposits	93	12/31	Bal.	2,259
		$2,505			$2,505
1/1	Balance	$2,259			

Bank Statement—December

Date	*Withdrawals*		*Deposits*	*Balance*
12/1				$2,398
12/1	#124	$10	$20	2,408
12/3	127	9		2,399
12/3	129	25	32	2,406
12/6	130	20	19	2,405
12/9	131	30		2,375
12/11	125	18		2,357
12/14	133	28		2,329
12/18	128	15	18	2,332
12/21	132	19		2,313
12/25	134	14		2,299
12/27	136	5		2,294
12/29	139	19		2,275
12/30			24	2,299

Bank Reconciliation 12/31

Balance per bank			$2,299	
Outstanding checks	#126	$12		
	135	10		
	137	17		
	138	23		
	140	8	70	
			$2,229	
Deposit in transit			30	(credited by bank 1/2)
Balance per books			$2,259	

53. The data below are given you with respect to the account of your client, The Johnson Co., with the First National Bank for the month of December.

1. The bank statement showed the following information:

Balance November 30	$34,257.92
Balance December 31	$31,862.75
Total credits (deposits)	$15,407.23

2. The following information concerning the First National account was obtained from the general ledger:

Balance November 30	$31,893.28
Balance December 31	$28,821.88
Total debits	$15,311.33

3. Checks totaling $3,207.18 were outstanding at November 30. Of these checks, $1,307.40 were returned with the December bank statement.
4. Of the checks written in December, all but $1,804.90 were paid by the bank in December.
5. Cash of $763.29 recorded on the books November 30 was credited by the bank on December 1.
6. Cash of $807.19 recorded on the books December 31 was credited by the bank on January 2, as determined by an examination of the January bank statement.
7. The bank charged a check for $75.80 to your client's account in error in November. The bank issued a credit memo in December.
8. The December bank statement included an advice of collection on a note left with the bank for collection. The collection was not recorded by the client—$103.20.
9. In preparing the check register for December, a check for $49.18 was

credited to the account with the First National Bank. The credit should have been to the Last National Bank account.

10. A check for $112.13 was charged by the bank as $121.13 in December.
11. A check written in December for $39.20 was not received by the payee. A stop payment order was issued to the bank, a new check written and entered in the check register, and the old check written off by journal entry, all in December.
12. The Bank made a service charge of $3.45 in November, which the client recorded in December.

Required:

(*a*) Prepare a four-column bank reconciliation for the month of December.
(*b*) Prepare any December 31 adjusting entries which you would recommend (ignore materiality).
(*c*) Key each figure on the reconciliation, and on a supporting schedule describe the verification you would have made to satisfy yourself as to the correctness of that figure. Assume that a cut-off statement, bank confirmation of balances, and any other necessary information have been obtained and used.

54. You are making an audit of Lamson Bros. and have found the records to be inaccurate and no satisfactory internal control. In connection with the audit you are reconciling the cash transactions for the month of December in addition to the cash and bank balances as of December 31. You have determined that the client's reconciliation as of November 30 is correct. The following information is available to you:

Client's Reconciliation November 30

Cash per general ledger	$ 2,631.74
Less—cash on hand	210.89
	$ 2,420.85
Less—bank service charge for November	9.00
	$ 2,411.85
Add—outstanding checks	991.00
Balance per bank	$ 3,402.85

Cash Receipts Book for December

December	1 Received on Accounts	$ 403.25
	2 Received on Accounts	1,366.40
	3 Received on Accounts	974.86
	4 Received on Accounts	4,322.47
	5 Received on Accounts	5,201.89
	7 Received on Accounts	7,310.75
	8 Received on Accounts	6,195.18
	9 Received on Accounts	8,884.46
	10 Received on Accounts	10,227.55
	11 Received on Accounts	6,698.89
	12 Received on Accounts	210.20
	14 Received on Accounts	1,426.46
	16 Received on Accounts	400.00
	17 Received on Accounts	700.00
	18 Received on Accounts	2,709.82
	21 Received on Accounts	850.00
	23 Received on Accounts	1,100.00
	27 Received on Accounts	911.35
	29 Received on Accounts	3,875.50
		$62,669.03

Cash Payment Record for December

December	1	Nov. Service charge	$ 9.00
	3	Checks	5,236.50
	5	Checks	3,645.21
	8	Checks	16,394.89
	10	Checks	15,873.42
	12	Checks	3,123.47
	14	Checks	475.42
	17	Checks	1,250.00
	19	Checks	3,622.83
	22	Checks	3,692.09
	26	Checks	3,456.45
	31	Checks	4,201.25
			$60,989.53

Cash on hand December 31 amounted to $100. The transactions per the December bank statement, which are correctly recorded by the bank, show that deposits amounted to $62,870.92; checks paid amounted to $57,952.03; service charges for the month were $10; and a charge of $100 was made against the account because of the return unpaid of a customer's check. Neither the service charges nor the returned check were recorded on the client's books. The total of outstanding checks as of December 31 was found to amount to $4,110.50.

Prepare a four-column reconciliation, together with any explanations you consider necessary, based on your examination of the data given herein. (A.I.A.)

55. In connection with the regular examination of financial statements as of December 31 of the Wholesale Grocery Co., you make a count of cash on hand at 10:30 A.M. on January 2. There are no other funds or negotiable paper on hand. The receipts of December 31 have already been deposited and there has been no mail delivery as yet on January 2, so there are no collections on hand from accounts receivable.

The company cashier, J. Kurtz, has custody of the petty cash and change fund which is carried on the books at $250. He is authorized to make disbursements from the fund for miscellaneous expenses, such disbursements to be supported by properly executed bills, receipts, or other documents. He is also authorized to cash personal checks for employees up to $25, and he collects on all cash sales made. The proceeds of these sales are mingled with the petty cash fund until the end of the day, when they are segregated and merged with the regular collections and prepared for deposit. Checks in the fund are deposited about every ten days, and a credit is made to an account "checks deposited." A reimbursement check is then drawn which is charged to the checks deposited account, balancing that account. The contents of the cash drawer at the time of your count are as follows:

Currency	*Coin*
$20 bills: 2	Halves: 10
$10 bills: 3	Quarters: 7
$ 5 bills: 4	Dimes: 33
$ 1 bills: 12	Nickles: 21
	Pennies: 28

Checks

Date	*Maker*	*Amount*
12/28	J. Cosgrove	$20.00
1/2	Smith's Grocery	18.91
12/24	Wholesale Grocery Co. (payroll)	42.50
11/15	J. Kurtz	45.00
1/25	J. B. Quick	15.00
12/29	A. J. Rank	12.00

Disbursement Vouchers

Date	*Receipted bills for*	*Amount*
12/15	Light bulbs purchased	$ 3.51
12/22	Typewriter repairs	2.75
12/26	Repairing broken window	4.75
1/2	Envelope moistener	3.91

Cash Sales Checks

No.	*Amount*
1851	$ 7.53
1850	18.91
1853	6.13

You are requested to prepare a worksheet which is to include the following:

1. Count of the above fund.
2. Record of the completion of any other procedures necessary to complete your verification of the fund.
3. Any points you should raise with the senior concerning items in the fund, changes in methods, and so forth.
4. Any journal entries you would recommend (ignore materiality considerations).

56. In connection with an audit you are given the following worksheet:

Bank Reconciliation
December 31, 1956

Balance per ledger 12/31/56		$17,174.86
Add:		
Collections received on the last day of December and charged to "cash in hand" on books but not deposited		2,662.25
Debit memo for customer's check returned unpaid (check is on hand but no entry has been made on the books)		200.00
Debit memo for bank service charge for December		5.50
		$20,142.61
Deduct:		
Checks drawn but not paid by bank (see detailed list below)	$2,267.75	
Credit memo for proceeds of a note receivable which has been left at the bank for collection but which has not been recorded as collected	400.00	
Check for an account payable entered on books as $240.90 but drawn and paid by bank as $419.00	178.10	2,945.85
Computed balance		$17,196.76
Unlocated difference		200.00
Balance per bank (checked to confirmation)		$16,996.76

Checks Drawn but Not Paid by Bank

No.	*Amount*
573	$ 67.27
724	9.90
903	456.67
907	305.50
911	482.75
913	550.00
914	366.76
916	10.00
917	218.90
	$2,267.75

Required:

1. Prepare a corrected reconciliation.
2. Prepare journal entries for items which should be adjusted prior to closing the books. (A.I.A.)

8 · Inventories

The verification of inventory is likely to present the greatest single challenge to the auditor making an examination of the financial statements of a concern engaged in manufacturing or distribution. On the one hand, inventories are likely to be a major item on the balance sheet, with a crucial bearing on financial position and a direct influence on the determination of net income. At the same time, however, the client is likely to encounter maximum difficulty in arriving at a reasonable inventory figure, and the auditor will ordinarily have equal difficulty in satisfying himself that the client's figure is reasonable.

Previous to the McKesson and Robbins exposé, most auditors carefully avoided accepting any responsibility for determining the physical existence of inventories or the accuracy with which inventory quantities were determined. The typical auditor merely deferred to the ability and integrity of management in determining physical inventory quantities and effectively side-stepped any personal responsibility by stating that the existence of the inventory and the accuracy of the quantities had been certified to him by management. This condition was undoubtedly the result of the way auditing developed, that is, largely as a means of establishing the fact that cash had been properly accounted for and that no bookkeeping errors had occurred. The early auditor was a specialist in figures and recording; he was never expected to know enough about merchandise or manufacturing processes to be able to assume any responsibility for the determination of inventory quantities.

As the use by third parties of audited statements grew, some public accountants attempted to take a more realistic view of their responsibilities, which included satisfying themselves as to the existence of inventory and the accuracy of inventory quantities. Such progressive accountants met with little success, however. Bankers and

other credit grantors were complacent and quite content with the status quo. Clients had little to gain from their point of view from any extension of the auditor's procedures to cover inventory quantities. Furthermore, they were naturally opposed to any change which would increase the cost of the annual audit. Even many public accounting practitioners were skeptical: how could an auditor know whether a barrel contained an expensive chemical or merely sand; whether all or only part of the machining operations on a casting had been performed; whether a bolt of cloth was low-count muslin or high-count percale? In addition, how could auditors possibly undertake to do any additional work at the time when most clients closed their books on December 31? Sufficient staff men could not be secured to perform the extra work, and it was already difficult enough to keep existing staff occupied after the close of the busy season, without adding more staff at the peak and compounding the problem.

Into this situation the McKesson and Robbins case injected itself with explosive force. In addition to overstated receivables and other incorrect figures, the audited balance sheet had shown $10,000,000 in inventory which was completely nonexistent! The responsibility of the public accounting profession quickly became apparent—the then-existing gaps in the typical audit examination must be filled. Any tendency to suggest that added procedures were impractical or beyond the capacity of the profession would result in a loss of confidence in the profession. As has already been noted, the challenge was met when the American Institute of Accountants issued the bulletin, *Extensions of Auditing Procedure.*

Although the additional responsibility recommended by this bulletin presented many problems to the profession, certain changes had occurred in business which somewhat simplified the problem of meeting peak manpower requirements. The natural business year was being adopted in a few instances, but even more important, the growth of internal control made it possible to do an increasing proportion of the audit work before the end of the year. Furthermore, a gradual broadening of the scope of public accounting services provided some additional work for the increased staff during the off-peak periods.

The matter of how the auditor would go about satisfying himself on the physical existence of the inventory and the accuracy of the client's quantity determinations is discussed later in this chapter under the heading, "Verification of Statement Amount." To lay the groundwork for the subsequent discussion of the problems of mak-

ing adequate verification, the matters of internal control and statement presentation are first discussed, following the pattern of the preceding two chapters.

INTERNAL CONTROL

The auditor will often find businesses which tend to consider good internal control over inventories to be less important than good internal control over cash and receivables. When such an attitude exists, the cause can usually be traced to the fact that cash and receivables are both recognized as being highly susceptible to direct monetary losses resulting from fraud or carelessness. Inventories, on the other hand, are often assumed to be of limited usefulness to anyone except the business which owns them, or possibly its customers, and therefore subject to fewer losses.

Actually, however, inventory is subject to a multitude of losses, but most of them tend to remain hidden unless they are intentionally uncovered and presented for the consideration of management. The following list is intended merely to suggest the wide variety of losses which might occur in connection with inventories. The causes of such losses are classified according to the particular operating functions which would be responsible for the losses:

PURCHASING

Buying in uneconomical quantities.

Failing to obtain best prices commensurate with desired quality standards.

Failing to give proper consideration to transportation costs and the most economical mode of transportation. (A traffic department is often created to handle this very technical problem.)

Overbuying in relation to current needs, resulting in excessive financing and storage costs, and possible losses due to obsolescence or deterioration.

Failing to order promptly and to follow up on orders, resulting in production delays and lost sales.

RECEIVING

Inaccurate counting, permitting shortages in goods received to go undetected.

Accepting goods which are not as ordered, causing production problems, loss of customer goodwill, or added cost of packing and returning the goods.

INSPECTION
Failing to detect material or merchandise which is defective or otherwise fails to meet company standards.

STORING
Careless handling resulting in breakage or deterioration.
Failing to provide adequate protection against access to inventories by outsiders or unauthorized employees, resulting in lost or unaccounted for materials.
Overlooking inventory items and improperly reporting them as being out of stock.

MANUFACTURING
Careless handling and processing resulting in excessive scrap and rework costs.

SHIPPING
Careless checking of quantities resulting in shipping more goods than are billed to the customer.

ACCOUNTING
Failing to provide adequate, current, and reliable data on which to base decisions.
Failing to maintain accounting records in such a way that losses will be disclosed and reported.
Failing to exercise proper care in approving disbursements.

The above examples should suggest to the reader that proper segregation of duties and precise recognition of responsibilities are as important to good internal control over inventories as they are to good internal control over other more liquid assets.

Purchasing

The principal responsibility of the purchasing department is the placing of purchase orders for needed merchandise or materials under the most favorable terms. Included, of course, is diligent follow-up of the orders to assure delivery according to schedule. In addition, the purchasing department is sometimes given the responsibility for determining when to order and how much to order —in other words, complete responsibility for inventory quantities.

The purchasing department must have considerable information at its disposal in order to carry out effectively its assigned tasks. It must have sales and production forecasts, information about inventory quantities on hand and past usage of those items, a sound understanding of present and future market conditions, and a thorough acquaintance with sources of supply. On the basis of this

data, purchase orders will be written for materials as they are needed. Sources of supply will be selected based on personal knowledge, price lists, or competitive bids. One or more copies of the purchase order will go to the vendor, one to the receiving department (no quantities shown), and one to the accounting department. This last copy will enable the accounting department to develop data covering orders outstanding and to verify prices when the goods and invoice are received. The purchasing department will keep one or more copies of the order for follow-up and reference purposes.

Receiving

When the materials are received, the receiving department should record the receipt of the shipment on a control register. Then, when the items are unpacked they should be carefully weighed or counted, and notation made on the copy of the purchase order showing the quantity actually received. This copy becomes a "receiving memo," which should be sent to the accounting department. The related materials can then be sent to the inspection department or directly to the storeroom. If the receiving memo is routed through the purchasing department, that department can then mark its records to show that the open purchase order has been filled.

Storing

The stores department should check the materials to be certain it is receiving all the materials with which it is being charged. The materials should then be stored in the assigned places, under proper protection from the elements and unauthorized withdrawal. Materials should be released only upon presentation of a properly authorized production or shipping order, which document will in turn reduce the recorded amount of inventory for which the stores department is accountable.

Manufacturing

The manufacturing department is, of course, responsible for all materials in process. The requisition which relieves the storeroom of responsibility transfers that responsibility to the manufacturing department. During the manufacturing process, the manufacturing department will initiate many of the records relating to costs to be added to inventory. Care should be taken that breakage, damage, scrap, and rework costs are accurately reported. When manufacturing is completed, the manufacturing department is relieved of re-

sponsibility for the inventory when the product is either returned to the storeroom or transferred to the shipping department.

Shipping

The shipping department is a vital factor in the control of merchandise or materials moving out of the custody of the business. Nothing should be released except upon the authority of a duly executed and approved shipping order. Some form of receipt from the customer or the carrier's agent should be obtained when goods are released. The receipt may be in the form of a signature on the proper line of a "pro register,"* or a signed copy of a bill of lading or similar document. The shipping department should retain the receipted records in an orderly fashion as a complete record of all outgoing shipments. After the goods have been shipped, a copy of the shipping order, duly noted for the actual quantity shipped, should be returned to the billing section of the accounting department.

Accounting

The responsibilities of the accounting department comprehend the entire inventory cycle, from the time the goods are ordered until they are shipped to the customer and payment has been received. When the copy of the purchase order is received, it may be recorded to show total outstanding commitments or to reduce an "open-to-buy" figure. It will then be filed pending the receipt of the goods and the invoice.

As invoices are received they should be matched with the corresponding open purchase orders and the two forms stapled together. If a receiving memo is already on hand it can also be matched with the invoice, and the invoice is then ready for processing for payment. If no receiving memo is on hand, the invoice may be sent on for "prepayment," or it may be held in a file of unmatched invoices. This file should be periodically checked against the file of unmatched receiving memos to clear out matching items which have inadvertently been overlooked and allowed to remain in the unmatched files.

A number of steps are involved in processing the matched invoices for payment, and a record should be prepared showing who performed each step. The record may be a part of the client's voucher

* Sheets of paper with lines progressively numbered to correspond with the numbers on sales tickets or bills of lading. The sheets are usually bound in a book or "register" after they have been completed; hence, the term.

form, or it may be rubber-stamped on the invoice. A rubber-stamped "audit block" might appear as follows:

MATERIALS RECEIVED			
PRICES			
EXTENSIONS AND FOOTINGS			
ENTERED IN INVENTORY			
DISCOUNT —			
COMPUTED BY			
AMOUNT			
APPROVAL FOR PAYMENT			
CHECK NUMBER			
DISTRIBUTION —			
ACCOUNT	201		
	501		
	824		
	837		

After the basic facts have been verified, the invoice can be sent to the stock records department for entry in the inventory records and then returned to the accounts payable section for further processing. Approval for payment of the invoice should be given only after all the listed pre-audit steps are shown as having been performed. In addition to checking these points, the person approving should satisfy himself that the invoice has not previously been paid and that it appears valid and reasonable in every way. To further internal control in some very large concerns, a list of approved vendors is often prepared, and the vendor's name must, of course, appear on this list before an invoice can be approved. If the vendor's name does not appear on the authorized list, the invoice should be forwarded to some designated person of higher authority who can approve the invoice after ascertaining that the transaction is valid, and was duly authorized.

After the invoice has been fully approved and the distribution indicated, entry can be made in the voucher register to record the liability and to show the charge to the appropriate general ledger inventory control account or expense account. According to when payment should be made, the invoice is either filed in a tickler file, an alphabetical file (by vendor) of unpaid items, or passed on immediately for payment.

The stock records department is charged with maintaining detailed

inventory records showing the current inventory of each item, past usage, quantities reserved or on order, and possibly the cost. Cost information would not be necessary, of course, under standard costs, the retail inventory method, or some form of estimated costs. The main purpose of the inventory records is to show when items must be re-ordered, and to give a record of past usage to serve as a guide when re-ordering. The records also provide the necessary cost information under average and first-in, first-out costing methods. From an internal control point of view, the records establish accountability over the quantities of individual items carried in the inventory. Such accountability is further strengthened if inventory controlling accounts are also maintained on a perpetual basis, but detailed inventory records alone can assist in pinpointing shortages for effective corrective action. To assure the accuracy of the inventory records and to disclose variances between the records and the actual inventory, most businesses take a complete physical inventory at least once each year, usually at or shortly before the close of the fiscal period.

Physical Inventory Taking

Since the accuracy of the physical inventory will directly affect financial position and operating results, the need for precautionary measures to assure an accurate inventory should be evident. This need is further evidenced by the fact that the physical inventory determines how effective the various departments have been in carrying out their responsibility to account for all inventory items with which they have been charged.

The first step in securing good internal control over the taking of the physical inventory is to select a person to plan and supervise the work who has a sufficient grasp of all phases of company operations. Such a person should be able to anticipate the many contingencies and problems likely to arise and be able to handle them properly. This person, who will likely be the controller or some other responsible person of sufficient rank and stature, should outline the actual procedures to be followed in taking the inventory. Written instructions should be prepared covering each separate job to be assigned to other employees, and steps should be taken to be certain that these instructions are fully understood and that each individual is impressed with the importance of carefully following the instructions.

Counting of inventory items should normally not be done by the same employees who are responsible for custody of the inventory. If counting is done by teams of two employees, however, one member

of each team may be an employee who is responsible for handling inventory items, since he will be better informed as to the exact description and location of the items to be counted. Other considerations in planning and completing the physical count are the following:

1. The receiving and shipping departments should be cleared of all merchandise before counting is begun, and receiving memos and shipping documents prepared near the date of the inventory count should clearly show the date goods were received or shipped. These dates are extremely important in obtaining a good cut-off of transactions in the accounting department.

2. If all plant activity cannot be stopped during the inventory counting, provision must be made for items which are transferred from one location to another. The same item must not be counted in both locations, and of course care must be taken that an item which has been moved has not been omitted entirely from the counting process.

3. Inventory items should be stacked in neat piles if at all possible to facilitate accurate counting.

4. Consignment goods, obsolete or defective parts, or any other items not to be included in the inventory should be clearly marked.

5. Supervisors should be on hand to observe the counting process and to be certain that instructions are being followed. Each department should be inspected and "cleared" by a supervisor before the counting is considered to have been completed.

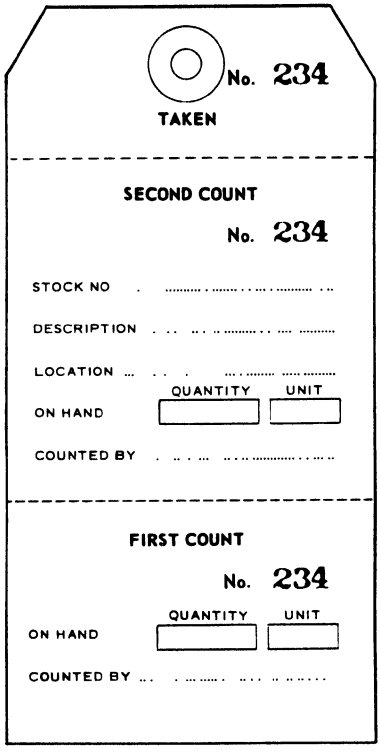
6. A "blind" second count is always the best assurance that counting has been accurately performed. The two counts should be compared by a third person, and differences should be cleared by having a recount made immediately.

7. Count tags or tickets should be prenumbered, and all numbers accounted for as soon as the tickets are turned in to ascertain that no tickets are omitted from the final inventory figures.

8. If detailed perpetual inventory records are maintained, the records should be adjusted to agree with the physical count. Major differences should be carefully investigated before the physical count is accepted as being correct. There is always a possibility that the inventory was stored in two locations, one of which was overlooked, that recent receipts or shipments have not been posted, or that items have not been properly identified.

9. After the inventory counts have been prepared and checked as suggested above, the individual items can be priced and extended, and inventory totals ascertained for comparison with the general ledger control and adjustment of that account.

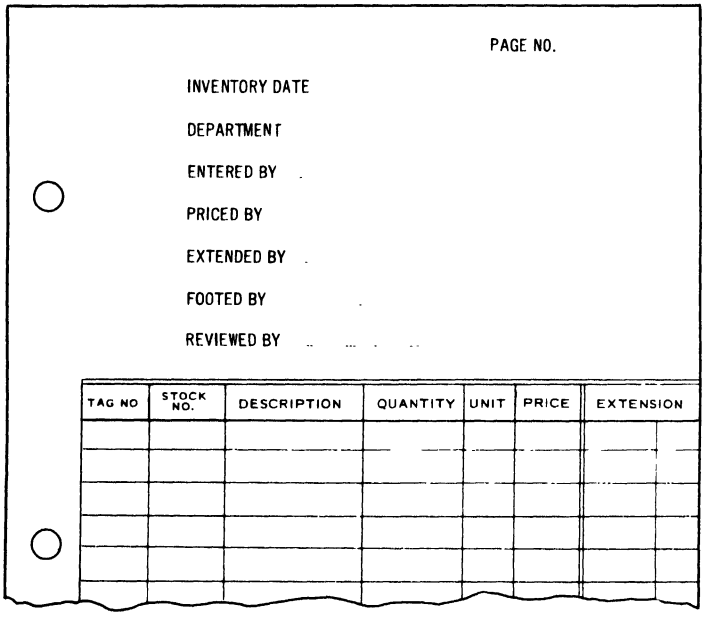
Inventory counts are often recorded originally on count tags. The following one illustrates the usual features of such a tag.



The first counter or count team fills in the stock number, description, and location, completes the data for the first count, attaches the tag to the inventory, and removes the first count stub. The second counter or team inserts the information for the second count, verifying descriptive information. The inventory is then inspected by the supervisor who, if satisfied with the manner in which the work has been done, authorizes the second count stubs to be "pulled." The "taken" stub stays with the inventory to evidence that the item has been counted and to aid in identification if a recount must be made. The first and second count stubs are then matched according to the tag numbers, and the first and second counts are compared. If discrepancies appear, recounts are made.

Next the quantity figures should be compared with perpetual inventory records if such records are maintained. Following this step

the information on the inventory tags is usually transcribed onto inventory summary sheets, which facilitate pricing, extending, and totaling the inventory. An example of such a summary sheet is shown below.



PAGE NO.

INVENTORY DATE

DEPARTMENT

ENTERED BY

PRICED BY

EXTENDED BY

FOOTED BY

REVIEWED BY

TAG NO	STOCK NO.	DESCRIPTION	QUANTITY	UNIT	PRICE	EXTENSION

Internal Reports

Effective control and management of a large business will depend heavily on adequate reports covering all activities relating to inventories. First hand information is obviously impossible to obtain, and reports must serve instead to convey the important facts concerning materials and material cost. Monthly operating statements serve as an over-all check on day-to-day decisions, and top management will rely heavily on these statements in evaluating the performance of individuals to whom inventory responsibilities have been delegated. To prepare such statements, the accounting department must keep its records in a manner which will permit determining the cost of sales. Using this key figure, and without the expense of a physical inventory, dollar inventory balances can be reported. These balances may be broken down by department, type of inventory, or in any other manner which will add to the significance of the reported figures.

The cost of sales figure also makes possible the preparation of a monthly income statement, with its important net income figure. Gross margin, another important figure on the income statement, will ordinarily be broken down by departments to give further information.

Annually, when the physical inventory is taken, variances between book balances and the physical inventory should be reported. A small variance carries assurance that inventory materials have been properly handled and accounted for, that monthly accounting reports have not contained misleading figures, and that the physical inventory was accurately taken. A large variance indicates, of course, an unsatisfactory performance in one or more of these areas, and an effort must be made to determine at what point or points the difficulty occurred.

There are many other important figures which should be reported to facilitate effective control over inventories and the various functions related to inventories. Outstanding purchase commitments should be reported if they are an important factor in total inventory position. Large department stores, which usually have carefully developed merchandise budgets, report an "open-to-buy" figure for each department, based on a comparison of budgeted amounts and inventory on hand and on order. Other figures important to department store operation are inventory variances and mark-downs. Mark-downs are sometimes reported under as many as a dozen classifications to meet the demand for detailed information to be used in exercising effective control over merchandising policies and procedures.

In manufacturing concerns employing standard cost systems, material price variances can be developed to reveal market price trends and purchasing efficiency. Material use variances and scrap figures will reveal at a glance the care and efficiency with which the manufacturing department is handling the materials for which it has been charged.

Internal Auditing

Each department which shares in the responsibility for inventories should come under the scrutiny of the internal auditor. His examination should disclose whether procedures reflecting good internal check are being followed, whether operations have been conducted efficiently and without waste, and whether transactions have been accurately recorded and reported. For instance, in the purchasing department the internal auditor should satisfy himself that orders have been placed only after careful consideration of quantities on hand

and future needs. He should be satisfied that adequate effort was made to obtain the best prices commensurate with quality and that competitive bids were obtained whenever warranted or required by established policies. Also, he should determine whether adequate follow-up measures have been employed to assure that goods ordered were received according to schedule.

The accounting department should come under particularly close scrutiny. Records showing the dollar value of goods on order should be verified. Paid invoices should be reviewed to ascertain that all pre-audit procedures were performed correctly and that the required initials and approvals were shown. The accuracy of the recording of these invoices in both the general records and the detailed perpetual inventory records should be tested. Particular attention should be given to reviewing and testing the procedures related to purchase returns.

The storage function should be audited from the standpoint of whether prescribed procedures for receiving and issuing materials are followed. Of perhaps even greater importance are the physical aspects of the storage function. Materials should be stored in an orderly fashion and properly protected against breakage, damage from the elements, and unauthorized withdrawals.

The internal auditor should have an important part in the taking and valuing of the physical inventory. He should review and approve the detailed plans and instructions for taking the inventory. He should observe the actual inventorying to ascertain whether the established procedures are being followed, and often he will have direct supervisory responsibility in connection with this work. He should satisfy himself that all materials have been counted, and that all count tickets or inventory sheets have been accounted for. He should make tests of inventory pricing, taking particular note that market values have been used when these are below cost and that damaged or obsolete items have been segregated and priced at their realizable value. Extensions and footings should also be tested by him, and of course the internal auditor should verify the inventory variances developed from the comparison of the book and physical inventories.

STANDARDS OF STATEMENT PRESENTATION

Although the public accounting profession has successfully solved the problem of accepting full responsibility for the fairness of inventory figures, including quantities and physical existence, other inven-

tory problems have kept the over-all situation concerning inventories in a most chaotic state. In many ways the greatest single problem confronting the entire accounting profession today is to bring some semblance of order out of the muddled inventory situation. At the heart of the matter is the last-in, first-out method of apportioning material costs between items on hand and items sold. Changing price levels, high income tax rates, and changes in the income tax regulations have been the catalysts which have induced the acceptance of Lifo and created the present inventory problem.

The adoption of Lifo is commendable, of course, from the point of view of income determination, since Lifo produces a better matching of current costs with current revenues. But although it has gone far to solve one problem, it has created numerous others. It has resulted in a balance sheet figure for inventories which is inconsistent with the current basis on which other current assets are stated and is all but meaningless from the standpoint of credit analysis. Also, it has detracted from the value of historical comparisons of both balance sheets and income statements for those concerns which have changed to Lifo. Lastly, since the change to Lifo has not been universal, companies employing different inventory costing bases cannot be effectively compared for investment or credit purposes. To further compound the confusion, studies by the Research Department of the American Institute of Accountants covering over five hundred published corporate annual reports have shown that over half of the reports do not reveal the cost method used in determining inventory figures! Ironically, these same studies show that most of the companies are not only faithfully following the generally accepted principle of valuing inventory at the lower of cost or market but are carefully disclosing their adherence to this method which has almost universal acceptance.

Although it is difficult to say how these troublesome matters will eventually be resolved, it is the author's belief that the advantages of Lifo in determining income will eventually lead to its universal adoption. In many cases, however, book inventories will be carried on some other basis and converted to Lifo by means of the "department store method," which is based on price indexes. In the balance sheet, inventories will be stated at market value, with the difference between the market figure and the Lifo cost shown as an unrealized credit adjustment of the total owners' equity.

Until agreement is reached on some uniform method of handling inventories, acceptable standards of statement presentation should be raised to require full disclosure of (a) the method by which inventory costs have been determined, and (b) the current replacement cost of

the inventories. Only with such information to aid them can analysts and investors make intelligent use of financial statements. The following comments relating to the presentation of inventories in the financial statements reflect the proposals just made and therefore deviate somewhat from certain statement practices which are still considered to be acceptable. The added requirements are not, however, unreasonable.

1. The basis on which inventories have been valued should be stated. At present, this would usually be the generally accepted basis of the lower of cost or market, supplemented by an indication of the method of determining cost.
2. When inventories are stated at cost, market value should be given parenthetically, and if inventories have been reduced to market, cost should be given parenthetically.
3. The effect of any change in the method of valuing inventories should be set forth in the statements, and the lack of consistency in methods should be noted as an exception in the opinion paragraph of the auditor's certificate.
4. Full disclosure should be made if all or part of the inventories have been pledged to secure outstanding obligations.
5. Principal classes of inventory should be shown separately and in order of their liquidity, if significant in amount. In addition to the traditional three-way separation between raw materials, work in process, and finished goods, other separations might include such items as goods out on consignment and merchandise in transit.
6. Purchase commitments should be disclosed if they are material or out of line with past practice.
7. Provisions for possible inventory price declines occurring after the balance sheet date should be made only by appropriations of retained income, and these reserves should not be deducted from inventory.

VERIFICATION OF STATEMENT AMOUNT

In verifying the dollar amount of inventory to be shown in the financial statements the auditor's objectives are:

1. To substantiate the statement amount through supporting internal records.
2. To establish the physical existence of the inventory and the reasonableness of inventory quantity figures determined by the client.
3. To determine that inventory items have been fairly valued in accordance with an acceptable method which has been consistently applied.

4. To prove that clerical operations (transcribing, extending, and footing) have been performed with sufficient accuracy.

A moment's reflection on the above objectives should suggest that each of the last three objectives relates to the client's physical inventory. The physical inventory is the means by which a client operating under the periodic inventory method determines the year-end inventory figure and calculates costs of sales. For the client operating under the perpetual inventory method, the physical inventory is the means of disclosing any adjustments which should be made to the perpetual inventory records in order that those records will clearly reflect the true inventory status for management and statement purposes. Since under either method the physical inventory has a direct bearing on the determination of financial position and results of operations, the reason for the auditor's preoccupation with the reliability of the physical inventory should be apparent.

In a first audit of a client's financial statements, each of the four objectives applies with equal force to the inventory figure at the beginning of the year under examination. Any misstatement of the beginning inventory will of course affect net income for the period being examined. The auditor can therefore give an unqualified opinion on the client's income statement only if he is satisfied that beginning inventory is fairly stated.

Typical audit procedures pertaining to the accomplishment of each of the stated objectives are discussed in the following sections.

Substantiation of the Statement Amount Through Supporting Internal Records

Since the auditor relies so heavily upon his verification of the physical inventory as a basis for his opinion on the client's financial statements, there is relatively less emphasis on the verification of the accounting records through reference to supporting records. Of major importance, however, is the verification of the cut-off on both purchases and cost of sales.

Purchases Cut-off. A faulty purchases cut-off may act to affect the financial statements in either of two ways. If goods have been received and included in the physical inventory but the purchase has not been recorded, net income will be overstated, retained earnings will be overstated, and accounts payable will be understated. If goods for which the purchase has been recorded are not included in the physical inventory, net income will be understated, as will retained earnings and the inventory figure in the balance sheet. The over-all effects will be the same under either the perpetual or the periodic in-

PERIODIC METHOD

	Correct		$500 Purchase Recorded but Goods Not Included in Ending Inventory		$500 Included in Ending Inventory but Purchase Not Recorded	
Sales		$15,000		$15,000		$15,000
Cost of sales						
Beginning inventory	$ 3,000		$ 3,000		$ 3,000	
Purchases	10,000		10,000		9,500	
Cost of goods available for sale	$13,000		$13,000		$12,500	
Ending inventory	2,500		2,000		2,500	
Cost of sales		10,500		11,000		10,000
Gross margin		$4,500		$ 4,000		$ 5,000

PERPETUAL METHOD

	Correct		$500 Purchase Recorded but Goods Not Included in Ending Inventory		$500 Included in Ending Inventory but Purchase Not Recorded	
Sales		$15,000		$15,000		$15,000
Cost of sales and inventory variance						
Beginning inventory	$ 3,000		$ 3,000		$ 3,000	
Purchases	10,000		10,000		9,500	
Cost of goods available for sale	$13,000		$13,000		$12,500	
Cost of sales (predetermined)	10,200	10,200	10,200	10,200	10,200	10,200
Gross margin		$4,800		$ 4,800		$ 4,800
Book inventory, end of period	$ 2,800		$ 2,800		$ 2,300	
Physical inventory	2,500		2,000		2,500	
Inventory variance		(300)*		(800)*		200†
Net margin		$ 4,500		$ 4,000		$ 5,000

* Shortage.
† Overage.

ventory method, but details within the income statement will vary. A cut-off error under the periodic inventory method will misstate cost of sales through a misstatement of either purchases or ending inventory. Under the perpetual inventory method errors affecting purchases or ending inventory will not affect the cost of goods sold figure, but will change the inventory variance figure. The simple examples shown on page 222 illustrate the effect of cut-off errors.

The reader should note that the cost of sales figure in the perpetual inventory method differs from the cost of sales shown in the "correct" column of the example illustrating the periodic method. The difference is explained by the fact that the periodic method offers no opportunity to determine whether goods which were available for sale and not on hand at the end of the period were lost or were actually sold. Therefore, the figure which is labeled "cost of sales" is actually a combined figure for both cost of sales and cost of merchandise which has not been accounted for. The resulting figure is far less informative than the figures developed under the perpetual inventory method.

Adjustments to Correct the Cut-off of Purchases. Businesses seldom experience a clean cut-off of purchases in the normal course of operations at the year end. Instead, adjustments to both the book records and to the physical inventory are usually necessary to place the two on a common basis. The necessary adjustments may be readily determined if the accounting system reflects good internal control. Earlier in this chapter mention was made of files for unmatched receiving memos, unmatched invoices, and prepaid invoices which have been paid before the goods have been received. The information provided by these files at the close of the year can be used in making needed adjustments to both book and physical inventory figures. Such use is illustrated below, based on the use of the perpetual inventory method.

	Accounts Payable	*Inventory Per Books*	*Physical Inventory*
Balance, December 31	$15,000	$32,000	$30,000
Add			
Unmatched receiving memos	2,000	2,000	
Prepaid invoices			1,000
		$34,000	$31,000
Deduct			
Inventory shortage		3,000	
Adjusted physical inventory, as above		$31,000	
Add			
Merchandise in transit (Unmatched invoices)	4,000	4,000	
Adjusted figures for statement purposes	$21,000	$35,000	

Included in the merchandise in transit figure would be any invoices received after the balance sheet date if the invoices show that the merchandise had been shipped f.o.b. shipping point on or before the close of the year. If, however, the merchandise had been received and counted in the physical inventory, then the adjustment necessitated by the unmatched receiving memo would be the only adjustment necessary.

Verification of the Purchases Cut-off. In verifying the purchases cut-off the auditor must begin with the records rather than the actual goods in the inventory. There is no convenient way of determining, by inspection of goods on hand, whether or not the goods have been recorded as a purchase. On the other hand, the means are readily available for determining whether goods recorded as a purchase have been included in inventory. Each purchase invoice should have a receiving memo attached, and if the receiving memo is dated on or before the inventory date, the goods must have been included in the inventory count if the counting was properly done. Conversely, if the receiving memo is dated after the inventory date, the goods could not have been included in inventory. From these observations the auditor's procedures for verifying the purchase cut-off should be readily apparent. Purchases recorded shortly before the inventory date and shortly after the inventory date should be selected on a test basis. Receiving memos attached to the purchase invoices should be examined to determine whether the goods were received and recorded in the same period. As a further test, the auditor may work in the opposite direction by noting whether goods shown as received near the inventory date by the receiving department records were entered as purchases in the same period. To make these tests conclusive, the auditor should ascertain that at the time the inventory is counted all merchandise has been cleared from the receiving department and placed in stock. Any merchandise which has not been so cleared should ordinarily be counted in the inventory. If, however, it is preferred to exclude such merchandise from the inventory count, then the related receiving memos should be marked to show that the goods were taken into stock after the inventory date.

As was noted in the preceding section, it is unlikely that all purchases will be recorded and received in the same fiscal period. The auditor's test of the cut-off will therefore reveal apparent discrepancies, and these should be traced to the detailed listings supporting the client's inventory adjustments, such as were illustrated on page 223. If such adjustments have not been made or if the auditor's tests show that not all items were included in the adjustments, then either the client or the auditor will have to determine the correct

adjustments by reviewing *all* transactions occurring within a period of several weeks before and after the balance sheet date.

Cost of Sales Cut-off. As discussed in the chapter on receivables, the sales cut-off will affect net income, and therefore the recording of sales and receivables must be made in accordance with the date on which goods have been shipped. There is, however, no significant problem with respect to the recording of the corresponding entry for cost of sales. If the goods in question are on hand at the balance sheet date, they will be included in the physical inventory and therefore appear on the financial statements as an asset. If the goods have left the premises, they will not be included in the physical inventory, and since the goods are therefore not accounted for as being on hand, their cost will appear as a charge against revenues. Under the periodic inventory method, goods no longer on hand will appear as cost of sales, and income will be correctly stated if the sale has been recorded.

When the general ledger inventory records are kept on a perpetual basis, cost of sales is determined independently, and is not merely a difference figure representing the goods available for sale which were not accounted for in inventory at the end of the year. Under this method costs are determined relative to each sale, and the inventory account is relieved of these costs. These costs are charged to cost of sales, and of course the entry for the cost figure should be made at the same time as the entry for the sale, even though the two entries are made independently. If a sale is recorded in one period but the cost of sales entry is not made until the following period, the result is obviously an understatement of cost of sales in the first period and an overstatement in the following period. Although this shift will affect gross margin percentages for each of the two periods, there will be no effect on net income if a physical inventory is taken at the end of the first period. The goods which have been sold and delivered will still be in the book inventory but will not appear in the physical inventory. Since the physical inventory represents the true asset figure, the book inventory must be adjusted downward. This adjustment will give rise to a debit to the account "Inventory shortage," or "Inventory variance," which will offset the understatement of the cost of sales figure. If this shortage figure is deducted immediately below the gross margin figure on the income statement, the resulting net margin figure will be correct. In the following period the cut-off error will cause an opposite reaction: cost of sales will be overstated, gross margin understated, and the inventory variance will show an inventory overage which will offset the understatement of gross margin.

Verification of the Cost of Sales Cut-off. As stated above, there is no cost of sales cut-off problem with respect to records kept under the

periodic inventory plan. When perpetual inventory controlling accounts are maintained, the auditor should satisfy himself that the outward movement of merchandise and the recording of both the sale and the cost of the sale occur in the same period. The audit technique is dependent upon the date of shipment as shown by records prepared by the shipping department. This date should be compared with the date on which the transaction was included in the sales and cost of sales records. If either of the recording dates does not fall in the same fiscal period in which shipment was made, the need for a possible adjustment is indicated. If even a single cut-off error is noted, the auditor's tests should usually be expanded to determine whether other errors may have occurred. If the amounts disclosed by these tests are material, adjustment should be made. The reader should note, however, that a $1,000 error in the sales cut-off will be relatively more material than a $1,000 error in the cost of sales cut-off. The explanation for this apparent enigma is that the sales cut-off error will affect net income whereas the cost of sales error will not, since it will be offset by a compensating error in the inventory variance. This difference in materiality of the two types of cut-off errors also suggests that the auditor's tests of the cost of sales cut-off need not be as extensive as those of the sales cut-off.

Cut-off Tests and Relative Risk. Relative risk is an important consideration in planning cut-off tests. If there is any reason why a client might wish to understate or overstate income, the auditor should ordinarily expand his tests and be particularly careful in reviewing those instances which would produce the desired result for the client. For instance, if it is known that a client plans to sell stock or bonds to raise additional capital, the auditor should recognize the possible existence of a desire on the part of the client to overstate income in order to improve the market for the securities. Conversely, a scheduled decrease in income tax rates for the following year would suggest the desirability of shifting income to the low tax year by understating income for the current year. To disclose a possible understatement of income the auditor should watch for goods shipped in the current year but billed in the following year, or goods received in the following year but recorded as a purchase in the current year. Overstatement of income would result if the preceding situations were reversed.

Although only purchases and sales have been referred to in the discussion of cut-off errors, the reader should recognize that similar cut-off problems are involved concerning purchase returns, transfers from raw materials to work in process and from work in process to

finished goods, as well as in transfers from central warehouse inventories to branch inventories.

Trial Balance of Subsidiary Records. Even though most large businesses are likely to maintain detailed perpetual inventory records of each item in stock, the records will seldom be used as a direct source of the final inventory figures for statement purposes. Instead, the inventory figures will be based primarily on the physical inventory. There is, however, one set of circumstances under which the detailed perpetual inventory records will be the principal source of the final inventory figures. This will be the case when physical inventory counting is done throughout the year rather than all at once. When this arrangement is followed, the auditor should test the figures on the client's inventory trial balance against the detailed records and then prove the footing of the trial balance.

Verification of Control Account Entries. As in the case of cash and accounts receivable, the auditor should make sufficient tests of the data supporting entries to the general ledger account, or accounts, for inventory (purchases in the case of the periodic inventory method) to satisfy himself as to the authenticity of these entries and the reliability of the resulting year-end balances. These tests will also give the auditor an excellent insight into the client's system of internal check.

Debits for purchases for one or more months should be traced to the corresponding totals in the voucher register. Unless internal control is exceptionally good, the purchases column of the voucher register should be footed for the selected month or months. Individual purchases recorded in these months should then be selected for further verification. In many instances a sample of from 25 to 100 of these purchases will prove to be adequate.

After the auditor has selected the specific entries to be verified, the auditor, or preferably one of the client's employees, should "pull" the vouchers, invoices, and other data supporting the selected entries from the client's files. In examining this supporting material, the auditor should satisfy himself that the amount of each selected entry in the voucher register corresponds with the amount shown on the company's voucher form and on the invoice. The invoice should then be verified for all or most of the following points, depending on the client's accounting procedures:

1. A copy of the client's purchase order should be attached, covering the order of the indicated quantity of materials invoiced to the client.

2. The invoice price and terms should agree with those specified on the purchase order.

3. A receiving memo should be attached evidencing the receipt of the proper quantity of the materials listed on the invoice.

4. Extensions, discounts, and footings shown on the invoice should be verified.

5. The invoice should be reviewed to be certain it carries a current date, is made out to the client, and appears proper and valid in all other respects.

6. The invoice should be marked "paid," or it should be perforated with the date of payment.

7. The company's audit block, appearing on either the voucher or the invoice, should be reviewed to determine whether it bears evidence that all the required verification steps were performed and that the invoice was approved for payment after appropriate review.

8. The reasonableness of the distribution of the debit posting from the invoice as between inventory, supplies, repairs, office expense, and so on, should be reviewed.

9. The purchase of materials should be traced to the posting in the detailed perpetual inventory records.

Purchase returns should be tested on a similar basis, as should inventory credits for sales or materials placed into production. In each instance the auditor should work from the control account entry back to the basic data supporting the recording of each selected transaction. The auditor should be especially careful to watch for compliance with the system of internal check in each instance.

Entries Under the Retail Inventory Method. In the audit of department stores or other businesses using the retail inventory method, certain additional verification of control account entries is necessary. Since inventories and cost of sales are both priced according to percentages developed by statistical records of all purchases, the need for tests of these records should be apparent. Each invoice should bear the buyer's notation of the price at which the goods are to be sold. This price is multiplied by the quantity purchased to obtain the total selling price of the goods. The total cost of each purchase and the total selling price are then entered in the statistical record. The percentage developed from the totals of this record is used to figure the cost applicable to the total sales for a period and to reduce the retail value of the physical inventory to the approximate cost of the inventory.

The auditor's test verification should cover all steps through the calculation of the mark-on percentage and the application of this per-

centage to the sales for one or more selected months in deriving the cost of sales credit to inventory. Month-to-month variations in the mark-on percentage should be carefully investigated, as should variations of individual purchases from a normal range of this percentage. The auditor should extend his verification to include a visit to the marking room to satisfy himself that the selling price marked on the invoice is actually used in preparing the price tags placed on the merchandise. The auditor should also make tests of the details supporting markups and mark-downs of the selling prices after goods have been entered in the statistical record.

Supplementary Over-all Tests to Substantiate the Client's Records. The auditor should always avail himself of any opportunity to study relationships which might throw additional light on the soundness of the client's accounting figures. For instance, a decrease in the rate of gross or net margin for the current year as compared with preceding years is always a danger signal which should be thoroughly investigated. Investigation might show that selling prices had been declining in the latter part of the year—a situation which should suggest to the auditor that inventory pricing should be carefully scrutinized for any write-downs to market values which might be required. On the other hand, if the decreased margin percentage can be accounted for by rising material costs in the face of constant selling prices, the auditor will usually be justified in closing his investigation.

Assuming, however, that the auditor discovers no change in the relationship of cost and selling prices, he will have to look elsewhere for the cause of the decrease. The inventory cut-offs are probably the next area which would warrant investigation. Failure to adjust for merchandise charged to purchases but not received in time to be inventoried might prove to be the explanation. Another possibility would be an error in the cost of sales cut-off under the perpetual inventory plan. Goods may have been entered as cost of sales, although shipment and recording of the sale did not occur until the following period.

The cut-off of sales is still another area which might hold the answer to the decreased margin percentage. Further investigation of this cut-off might disclose that goods which had been shipped and reflected in cost of sales for the current period had not been taken into sales and receivables until the following period.

If neither price changes nor cut-off errors yield the explanation for the decreased rate of margin, the auditor may then turn his attention to the client's physical inventory figures. Under the periodic inventory method an understatement of the inventory would result in an overstatement of cost of sales and an understatement of gross

margin. The possibility that some merchandise had been overlooked or that an error had been made in counting, pricing, extending, or totaling the inventory would then have to be considered. If this possibility is raised before the auditor has completed his work on the inventory, his tests can be extended and slanted toward disclosure of a possible understatement under the concept of relative risk.

When the inventory account is maintained on a perpetual inventory basis, the inventory variance figure for the year provides an excellent means of corroborating the client's accounting figures. If the inventory variance for the current year is in line with variances for previous years, the auditor has one more bit of evidence that everything appears to be in order. A marked change in this figure, however, is another danger signal. An error in the cut-off of purchases will affect the inventory variance, and an error in the cut-off of cost of sales will affect both the cost of sales figure and the amount of the inventory variation. In the latter case, however, the misstatements are offsetting and the auditor need be less concerned about them.

Errors in the physical inventory must also be considered as a possible cause of an abnormal inventory variance. Any such errors will affect both net income and balance sheet figures, and it is most important that the auditor locate the errors and have the client make the necessary adjustments if they are material.

Still another means of corroborating a client's financial figures is offered in those few situations which involve only a limited number of raw materials and finished products, as for instance a steel mill or a coalyard. Records of quantities purchased and sold will usually be maintained, and by converting these into dollar amounts at average prices, the auditor has a useful independent check on sales, purchases, cost of sales, and ending inventory.

The Physical Inventory

In most businesses the year-end taking of the physical inventory and the pricing, extending, and totaling of the resulting quantity figures is a costly and time-consuming process. The large number of detailed operations involved would present a practical impossibility if the auditor were to attempt to satisfy himself on the fairness of the final inventory figure by independently verifying an adequate proportion of the multitudinous individual operations. Instead of such a detailed approach to the verification of the physical inventory, the auditing profession has developed a more practical approach involving the two objectives of evaluation and compliance.

In terms of evaluation, the auditor carefully reviews beforehand

the client's plans for the physical inventory. At this time the auditor makes any suggestions that appear reasonable for improving or strengthening the plans in order to provide maximum assurance that the final figures will be sufficiently reliable. Then, at all stages of the taking and computing of the inventory, the auditor makes sufficient tests to satisfy himself that the proposed plans have been carefully followed. If the auditor is satisfied as to both the planning and execution of the inventory process, he can accept the final inventory figure with reasonable assurance that it is fairly stated.

Thus it may be said that the auditor does not actually verify the figure for inventory, but instead he establishes the fairness of the figure by checking on the representations of management as to how the figure was derived. If the auditor's evaluation of management's plans for taking the inventory reveals deficiencies which are not corrected, or if the auditor's tests of compliance with the established plan reveal important deviations, then management's representations lose part of their validity. The auditor must counter this loss of validity either by extending his tests so as to obtain more direct verification of the inventory figure or by qualifying his certificate to show that he was not able to satisfy himself that the inventory is fairly stated.

The situation is closely related to the auditor's approach in establishing the validity of accounts receivable. In a small organization with little or no internal control, the auditor determines the validity of the receivables by mailing confirmation requests to practically every account in the receivables ledger. By contrast, in a large organization such as a public utility which has both an elaborate system of internal check and a satisfactory internal auditing program, the auditor may send negative confirmation requests covering as little as 5 to 10 per cent of the total dollar balances. The auditor here is relying primarily on management's representations as to accounts receivable, assuming that his appraisal of internal control and tests of compliance prove that management's representations can be relied upon. In this situation, the limited confirmation of receivables is undertaken not as a proof of validity of the receivables but as a further check on the effectiveness of internal control. This same approach applies to the examination of inventories, assuming that internal control is adequate.

The importance of the internal control element should be carefully noted in the following discussion of each of the three remaining objectives of the auditor's inventory examination. The objectives center about the three principal steps which the client employs in

arriving at a final inventory figure: counting the items on hand, valuing them, and computing their dollar total.

Physical Existence and Reasonableness of Quantities Determined by the Client

Establishing the physical existence of the goods underlying a client's inventory figure and ascertaining the reasonableness of the client's count of quantities are actually two separate objectives, but they are treated as one since they both deal with the physical stock of items on hand. As has been pointed out previously, these two objectives were made a part of generally accepted auditing standards as a direct result of the McKesson and Robbins investigation. The report of the American Institute of Accountants which initiated this change* further stated that if an auditor does not satisfy himself on these matters he must include a statement to that effect in his short form audit report accompanying the statements.

No indication was given that the auditor was expected to serve as stocktaker or that he must verify all or most of the quantities determined by the client. Instead, the report stated that the auditor's function was to observe the inventory taking as a means of ascertaining the credibility of management's representations as to how inventory quantities were determined. Similarly, an effort was made to avoid any implication that an auditor was expected to assume the role of an appraiser or a materials expert. This point often creates an understandable doubt as to whether the auditor's additional procedures have any real value if the auditor admittedly is not an expert in materials.

The matter may perhaps be clarified by the use of two simple illustrations. In observing the inventory taking at an oil refinery, for example, the auditor may be told that a storage tank contains crude oil. The auditor can readily ascertain that the tank actually does contain something and that the contents bear evidence of being something like crude oil, rather than water or some other less valuable liquid. The remaining problem then becomes one of determining the specific gravity of the oil, since its value is determined by this factor. The auditor should be sufficiently informed about the industry to know that this problem exists, but he need not know how to make the necessary tests and calculations to arrive at the final figure. He can be reasonably satisfied if he sees that the tests are made and reviews the calculations by which the final figure is determined.

The inventory of work in process in a manufacturing plant also

* See Appendix C.

presents problems, although the auditor's solution will necessarily involve different techniques than were suggested in the case of the crude oil. Again, the auditor may not be able to identify readily the basic raw material, except perhaps to know whether it is steel, brass, aluminum, or some other basic metal. Prices vary considerably, of course, according to the grade and specifications of the metal, so further identification is necessary. The necessary information may be shown on the inventory description of the item by the shop employee doing the counting. As a check on this information, the auditor can refer to the engineering specifications for the part, the description of the material on the production order and inventory requisition, or possibly the standard cost sheets if a standard cost system is used. Since all these sources are independent of the production department, the auditor has an adequate basis for determining whether materials in process have been properly represented on the final inventory records.

Unless job cost records are maintained, the description of work in process must also show what operations have been performed on each lot of materials. Again, the auditor may be able to ascertain in a general way what operations have been completed by inspecting the parts, but he will probably not be able to tell whether all of certain related sequence operations have been performed, such as whether a hole which has been bored has also been reamed. He can double check the listed inventory information, however, by asking a shop employee who is in the area or by referring to the production records. In summary, then, if the auditor is satisfied that good internal control has been incorporated into the inventory procedures, and his tests show that the resulting inventory information is reliable, he has an adequate basis for judging the existence of the inventory and the fairness of the dollar total even though he is neither an appraiser nor a materials expert.

Inventory Taken at the Balance Sheet Date

Most businesses, and particularly the smaller ones, take their physical inventory at the close of business on the balance sheet date. Operations may be halted early on that day to permit the counting of inventory on hand, or the count may be made the next day before operations are resumed. Although in many instances habit alone may account for taking inventory at the close of the year, there is often little choice in the matter. If a business maintains no perpetual inventory records, or if lack of internal control limits the reliability of the records which are maintained, the only way to obtain an in-

ventory figure which will not distort financial position or operating results is to take the inventory at the statement date. The auditor's responsibility in connection with the inventory is to satisfy himself that it actually exists and that the quantities have been reasonably determined by the client. The procedures which the auditor employs in accomplishing these objectives fall under three main headings: evaluation, compliance, and verification.

Evaluation. Since the auditor accepts the final inventory figure largely on the basis of the client's representations, the auditor must decide in advance how reliable those representations are likely to be. If investigation shows any weaknesses in the client's proposed physical inventory procedures which are not corrected, the auditor will have to plan to expand his own verification to compensate for the deficiencies. The major points which the auditor should watch for in evaluating the client's plans for taking the inventory are listed in the section of this chapter dealing with internal control.

Ideally, the client should reduce all plans and instructions concerning the inventory to written form. By so doing there is less chance for misunderstandings to arise, and the added assurance that the instructions will be thoroughly understood is in itself an important element of internal control. The written instructions also simplify the auditor's task of evaluating the client's plans. If only oral instructions are issued, the auditor should discuss the inventory procedures with the various individuals involved. The purpose of such discussion should be to enable the auditor to determine how the inventory is to be taken and to ascertain whether the individuals involved understand what they are to do and how they are to do it.

Since the preliminary evaluation of the client's inventory plans is so important, the need should be apparent for the client to select the auditor and complete the audit arrangements well in advance of the close of the client's fiscal year.

Compliance. Although it is important that adequate internal control be incorporated into the client's plans for taking the physical inventory, it is equally important that the actual work be done exactly as planned. To establish the compliance of the client's employees with the inventory plans which the auditor has reviewed and approved, the auditor must be on hand during the actual inventory counting process. The purpose of his presence is not, as is often supposed, to *take* the inventory, nor is it to *supervise* the taking of the inventory. Instead, the sole purpose is to permit the auditor to *observe* the work being done by the client's employees in order to satisfy himself that there is full compliance with the inventory instructions.

Among the things which the auditor should be particularly careful to watch for in this process of observation are the following:

1. Has production and movement of material been halted as planned, or if activity is not to be halted, are the precautions, designed to assure that all items on hand will be counted once and only once, being followed?

2. Have the receiving and shipping rooms been cleared of materials, and if not, have the materials been either included or excluded from the count as required by the inventory instructions and the circumstances involved?

3. Are materials neatly stored or piled to permit accurate counts?

4. Are the employees actually attempting to obtain accurate counts? The auditor should especially note that this is true of items which are difficult to count, since employees may be tempted to make guesses in such instances.

5. If a blind second count is specified, are the employees actually making an independent second count? Sometimes access may be available to the figures for the first count, and these may be recorded without attempting to make a second count or to verify the first count. In one instance where most of the inventory was represented by neatly stacked cartons of merchandise, it was noted that the first count crew would usually count the number of cases up, across, and back in each stack and then figure the total by writing down the multiplication on one of the cartons. Some of the crews supposed to make independent second counts were observed merely copying down the totals arrived at by the first crew when the figuring had been done on one of the cartons.

6. Is counting actually being done in each of the areas in which goods are stored or are in process of manufacture? If count tags are left with the items counted until a given area or department has been fully counted, the auditor should note that when the inventory supervisor authorizes the tags to be "pulled" that he inspects the department to be sure that everything has been counted and that the counting has been done accurately and according to instructions.

7. Are first and second counts being compared as required and recounts made when discrepancies are noted?

8. Are all inventory tags or sheets being accounted for?

The over-all purpose of the above observations is to enable the auditor to satisfy himself that the supervision of the inventory work has been adequate and that all employees have appeared to understand their duties. In other words, the auditor should determine

that all evidence points to the likelihood that an accurate inventory has been taken.

At times the auditor may not be able to be present to observe the taking of the physical inventory, as for instance if he is not engaged as auditor until after the close of the year. In such situations a vital link in the chain of verification procedures is missing, and the loss may be so important that the auditor will be unable to express an opinion on the fairness of the inventory figure. There is a possibility, however, that the auditor may be able to satisfy himself by alternative means. The auditor's approach under such circumstances will ordinarily be somewhat as follows. He should first review the inventory plans and instructions as he would under normal circumstances. Then, from inquiry of the persons who supervised the inventory taking and did the actual counting, the auditor should attempt to determine whether a satisfactory inventory was taken. To corroborate the opinion he forms from these inquiries the auditor should inspect the actual physical inventory records, being careful to note the presence of the initials of persons who did the work, evidence that recounts were made when necessary, and any other indications which would point to the validity and reliability of those records. Finally, the auditor should test the reliability of the physical inventory figures by tracing those figures to the perpetual inventory records to ascertain whether the perpetual records were adjusted when necessary. Then, taking current balances based on these adjusted figures, the auditor should verify the current balances by making test counts of a substantial portion of the inventory items. Such tests should be much more extensive than the tests discussed in the following section on verification. The usual tests for verification purposes are intended as a check on the auditor's conclusions based on the observation of the inventory taking, but when the auditor was not present at the inventory date the tests must be adequate to serve as a substitute for the usual observation. As a final check on his conclusions reached in this manner, the auditor should carefully investigate inventory variances and variations in gross margin.

All these comments concerning alternative procedures are predicated on the existence of good internal control, including adequate perpetual inventory records. If these factors are not present the auditor will ordinarily have no way to satisfactorily verify the balance sheet inventory figure at the later date. Unless the client is willing to take another complete physical inventory to satisfy audit requirements, the auditor will be required to qualify his audit report. He will explain that as a result of being unable to carry out the customary auditing procedures, his opinion on the financial statements is

exclusive of the inventory figure. Should inventories be a significant factor in the financial statements the auditor may be forced to withhold any over-all expression of opinion on the statements.

Verification. In addition to his evaluation of the inventory plans and his observation of the inventory taking to check on compliance with those plans, the auditor should make some independent verification tests of the inventory figures. These tests will ordinarily be performed in conjunction with the observation of the inventory taking. The auditor should actually count some of the inventory items. If the client's count sheets or count tags are available, the auditor should compare his counts with those records as soon as possible so that any discrepancies can be investigated on the spot. If the auditor's counts reveal that the client's employees have been inaccurate in their work, the auditor may have to request that the entire inventory be recounted. Similar tests should then be made of the new figures to prove their reliability.

The auditor's test counts should ordinarily be recorded in his working papers, as on schedule C-5, with as much related information as possible recorded concerning each count. Such information usually includes the identifying stock number of the item, complete description of the item, its location, and the tag or sheet number on which the item was recorded by the employee who made the count. The working paper record is important for two reasons. First, it provides the means of verifying that the actual counts are reflected in the client's final inventory tabulation. In most instances the auditor will not be able to control the inventory records during the process of pricing and extending the figures. By tracing the counts recorded in his working papers to the counts shown in the completed inventory tabulation, the auditor gains assurance that no figures were changed during the period the records were not under his control. This assurance is limited, of course, if test counts have been made of only a small proportion of the inventory items. The auditor will make such limited counts, however, only when there is adequate internal control, and there will therefore be little likelihood that any of the count figures will have been altered. When internal control is weak the auditor should endeavor to count most of the inventory items of high total value. Under these circumstances any effort by the client to change materially the inventory quantities will be readily apparent when the auditor traces his count figures into the final inventory tabulations. The auditor should also review the inventory tabulations for any major items which he has no record of having counted. These should be fully investigated since they may well be fictitious items

ventory figures by the client can be gained by careful investigation of any variations in the rate of gross margin.

The second reason for making a working paper record of the auditor's test counts is to provide evidence of the extent of the tests which were made. This information is particularly important in connection with the final review of the audit by the manager or principal in charge, since it will be one of the bases for determining whether the examination has been made in accordance with generally accepted auditing standards. To facilitate this type of over-all review, the auditor should summarize his tests in a form similar to that shown on schedule C-1. The summary should show the percentage of the total inventory test-counted by the auditor both in terms of the number of inventory items and the total dollar value of the inventory.

No generalization can be made as to how extensive the auditor's test counts should be. In a large business with good internal control and a homogeneous inventory composed of items of relatively small value, the auditor's tests will often cover as little as 1 per cent of the inventory. At the other extreme, in the case of a small business with little or no internal control and the bulk of the inventory value represented by only a few items, the auditor should count all the major inventory items and quite a few of the lesser ones. By concentrating on the major items the auditor's tests may well cover 90 per cent or more of the total dollar value of the inventory while covering as little as 50 per cent or less of the total number of items represented in the inventory. Similar variations will occur in the number of staff men assigned to the work on inventory quantities. If internal control is good, two or three men may be adequate to observe and test the counting of an inventory composed of several thousand items with a total value of several million dollars. The same number of men might be required to provide adequate coverage in the case of a small retail store or manufacturing plant if internal control is weak, even though the inventory may total only a few thousand dollars.

Physical Existence. Closely associated with the problem of verifying that the inventory has been carefully and accurately taken is the problem of verifying in a general sense the basic existence of the inventory shown by the client's records and displayed in the financial statements. At the time when the auditor has physical contact with the inventory he should attempt to satisfy himself in a general way that the inventory includes the types of items that he would expect the client to have in stock and that the quantities bear a reasonable relationship to the total dollar valuation of the inventory as shown by the accounting records. The conclusions to be reached by this procedure are necessarily tenuous, but the auditor should be able

to detect gross discrepancies. A $10,000 inventory carried on the books at $100,000 should be quite apparent if a conscious attempt is made to match book figures and the volume of physical goods on hand. Such precautionary efforts are one of the principal forms of protection against material misstatements of financial and operating results, and should help prevent the recurrence of another McKesson and Robbins case.

Inventory Taken Piecemeal Throughout the Year

If an accurate inventory count is desired, it will usually be necessary to close down operations during the taking of the inventory. Businesses can avoid such disruptions, however, if internal control is adequate and the perpetual inventory records have been accurately maintained. Under such conditions it is possible to form an inventory team which will count inventory throughout the year, planning the work so that every item in stock is counted at least once during the year. As counts are made, they are reconciled with the perpetual inventory records, and the perpetual records are adjusted if a difference exists. The final inventory at the year end is then based on the adjusted perpetual records. This arrangement for taking the physical inventory obviously requires reasonably accurate perpetual inventory records. If any inventory items are highly susceptible to variances, those items should be counted as close to the balance sheet date as possible to minimize the number of variances that will occur between the count and the balance sheet date.

A slight variation of the above method of counting inventory continuously throughout the year is to count an inventory item whenever a new order is placed. Since stocks will then be near their lowest point, there will be fewer items to count, reducing the counting time and the possibility of error. Whether this method is followed or whether the continuous counts are made according to a predetermined schedule, the auditor's procedures will fall under the same three headings as when the entire inventory is taken at the balance sheet date, even though the actual procedures differ somewhat. The three headings are, of course, evaluation, compliance, and verification.

Evaluation. Regardless of whether the client takes the inventory at the year end or on a continuous basis throughout the year, the auditor must place considerable reliance on management's representations. He must therefore carefully evaluate management's plans and instructions for taking the inventory. In addition to watching for those provisions mentioned in connection with the year-end inven-

tory, which are a prerequisite for any satisfactory inventory plan, the auditor should note that adequate consideration is to be given to the cut-off of the perpetual inventory record before a count figure is compared with the book balance. If goods have been received or issued but the posting of the transaction has not yet been made to the perpetual record, the count and book figures cannot be compared until they both are placed on an identical basis. For instance, assume that 100 units have been removed from stock and sold but that the sale has not yet been posted to the perpetual inventory record. Unless all the facts are taken into consideration, there will be an apparent shortage of 100 units. If the perpetual record is adjusted downward to agree with the number of items shown by the count, subsequent posting of the sale will further reduce the balance, and the record will show 100 fewer units than are actually owned. The error will remain in the record, of course, until another comparison of book and physical inventory is made. In the interim, statements prepared from the book figures will show inventory understated by the cost of the 100 items and net income understated by a similar amount.

In addition to being certain that the cut-off problem is given full consideration, the auditor should ascertain that the instructions require careful investigation of all major differences before book figures are adjusted to agree with the physical count made by the inventory team. Often such investigation will reveal that a cut-off discrepancy has been overlooked, that the items were miscounted, that items in a second location were not included in the count, or perhaps that the wrong items were counted. The importance of revealing and correcting any such errors should be obvious.

The client's year-end use of the perpetual inventory records must also be studied by the auditor. The cut-off of purchases and sales is again important, since the general ledger inventory controls will be adjusted to agree with the detailed perpetual inventory records. Before the two sets of records can be compared, both sets must reflect all transactions occurring prior to the end of the year, but no transactions occurring after that date. Once this point is established, the balances representing quantities on hand at the end of the year can be transcribed from the perpetual records to the inventory listing sheet. If dollar balances are maintained in the perpetual records, the balances can be listed on an adding machine to arrive at the final inventory figure. Errors made in this listing process are more readily detected if the inventory is broken down by subcontrols which can be balanced separately, but in the absence of such a possibility a second listing of the balances should provide adequate proof of accuracy.

Compliance. All the important steps discussed in the preceding section must be reviewed or observed by the auditor to ascertain that the client's plans and the features of internal control are actually in effect. Most important, of course, is the matter of whether the prescribed counts are being made as directed and whether all items will have been counted at least once in the year preceding the balance sheet date. On one or more occasions during the year the auditor should visit the client's premises, preferably unannounced, and accompany the inventory crew for the purpose of observing the manner in which the counting is being done. He should note such things as whether an effort is being made to obtain accurate counts, whether the cut-off is verified before the perpetual records are adjusted to agree with the physical count, and whether adequate investigation is made of any significant differences before the perpetual records are adjusted. In general, the auditor should be satisfied that the inventory crew understands its responsibilities and is attempting to carry them out in a satisfactory manner.

Verification. In connection with his observance of the work of the inventory count crew, the auditor should make independent verification of some of their count figures. These test counts should be recorded in the auditor's working papers and traced to the client's perpetual inventory records. As a further verification of inventory quantities, the auditor should count, at a time near the balance sheet date, a few of the items which were counted by the inventory crew earlier in the year. Comparison of these counts with the perpetual inventory records should then be made to determine the accuracy with which these records have been maintained subsequent to their adjustment to agree with the physical counts. If substantial differences are disclosed by this step, the auditor may not be justified in accepting a final inventory figure based solely on the perpetual inventory records.

The auditor should also satisfy himself that all inventory items have been counted at least once during the year, with needed adjustments recorded on the inventory records at that time. The relative size of the individual adjustments should be noted since a large number of material adjustments would place the reliability of the inventory records in a questionable light.

Inventory Taken at a Single Date Preceding or Following the Balance Sheet Date

Many businesses prefer to take inventory a month or two before the balance sheet date. The advantage of this arrangement is that the release of financial statements need not be delayed by the lengthy

period usually required to investigate inventory count differences and to complete the pricing, extending, and footing of the inventory. In the case of a well-known department store, however, at one time the fiscal year ended on December 31, but the physical inventory was not taken until the fifteenth of January. By that time stocks had been placed in a more orderly condition following the hectic Christmas rush, and January clearance sales had reduced the number of items in stock.

Evaluation and Compliance. The problems and procedures are practically identical when the complete physical inventory is taken at one time, regardless of whether that event occurs on the last day of the fiscal year or at some date within a period of a month or two. Additional consideration must be given, however, to the adequacy of internal check. The auditor is forced to rely entirely on the records to reflect changes in inventory between the count date and the balance sheet date, and internal check is the principal basis for assessing the probable accuracy of these records. Careful evaluation and adequate compliance tests are therefore of utmost importance.

Provisions must be made for a clean cut-off at both the count date and the balance sheet date, and the auditor should ascertain that these provisions have been carried out. One other problem is added as a result of the time intervening between the date of the physical count and the date of the balance sheet. If a client's operations are such that inventory shortages cannot be avoided, as, for instance, in a department store, net income and the ending inventory will be overstated unless provision has been made for shortages arising after the book inventory has been adjusted to agree with the physical inventory at the count date. These comments are based on the presumption that while shortages cannot be eliminated they can be kept under control and within reasonable limits. If excessive or erratic shortages have occurred, internal check must be presumed to be inadequate to warrant accepting book figures as evidence of inventory changes during the interim between the physical count and the balance sheet date.

Verification. The heavy reliance the auditor must place on the book records to reflect the actual movement of stock after the count date suggests the need for testing the record of transactions occurring between the count date and the balance sheet date. In formulating the audit program for these tests, the auditor may well consider the factor of relative risk. Should conditions suggest that the client might seek to increase net income for the year, an understatement of cost of sales entries during the period following the inventory count would accomplish that purpose. Under these circumstances the

auditor's test comparisons between the record of goods shipped and the entries relieving inventory of the cost of those goods should emphasize tests from the shipping records to the book entries. The reverse would be true if an understatement of income were the more likely possibility. The auditor should then concentrate on the selection of specific cost of sales entries to be traced to the shipping records, since fictitious cost of sales entries not supported by actual shipments would thus be revealed.

The rate of gross margin realized from sales recorded between the inventory date and the close of the fiscal year provides another means of detecting any manipulation of the records. A rate in excess of that realized during the preceding portion of the year would suggest a possible understatement of cost of sales whereas a lower rate of gross margin would suggest the opposite possibility. If an unexplained variation exists, test comparisons between the records of sales and cost of sales would be in order.

The situation is somewhat different if the physical inventory is taken after the close of the year. To illustrate, the following example shows that an understatement of the recorded purchases during the intervening period could be used to conceal an inventory shortage and thus in turn to overstate net income.

	December 31	*Purchases*	*January 15*
Inventory control account	$34,400	$12,000	$46,400
Merchandise actually in stock	33,400	13,000	46,400

When the physical inventory is taken at January 15 and compared with the inventory balance per books, no shortage would be indicated. Unless the auditor detected the understatement of purchases, he would assume the $34,400 book inventory figure at December 31 to be correct and therefore properly used for statement purposes.

The above discussion emphasizes primarily the importance of tests designed to indicate to the auditor whether the book records accurately reflect the actual receipt and shipment of goods. Complete conformity of the book records with the facts is particularly important at cut-off dates, and tests should cover a short period before and after the date of the inventory count as well as a short period before and after the balance sheet date. As an over-all indication of the accuracy of the inventory figure at the balance sheet date, the auditor should determine whether any unusual changes have occurred in the inventory figure between the count date and the balance sheet date.

Other verification procedures to be followed when the physical inventory is not taken at the balance sheet date would be similar to

those followed when the dates of the balance sheet and the physical inventory coincide.

Inventories not in the Custody of the Client

When inventories are stored in public warehouses, shipped on consignment, or held by the vendor for the convenience of the client, the auditor should obtain written confirmation of those inventories directly from the custodians, in addition to inspecting such available evidence as warehouse certificates. This requirement is a further reflection of the strengthening of auditing standards which occurred after the McKesson and Robbins fraud. The A.I.A. bulletin *Extensions of Auditing Procedures* sets forth this requirement and states further that if the amount of inventories in the hands of others is a significant proportion of the client's assets then supplemental inquiries should be made to satisfy the auditor of the *bona fides* of the situation.

The extent of the supplemental inquiries would, of course, vary according to the auditor's judgment as to the requirements of each situation. In some cases reference to a directory of bonded public warehouses would be sufficient supplementary verification of the existence of warehouses confirming inventories in their custody. Further verification would include reference to audited financial statements as evidence that a warehouse has been properly bonded or that a consignee or vendor holding inventory for the client is solvent. An actual visit to the premises on which the inventories are stored would offer maximum assurance that the situation had been properly represented to the auditor. In connection with such a visit the auditor should note that his client's inventory is properly segregated and identified. Test counts of a few of the items would also be in order, although these recommendations would obviously be inapplicable if fungible goods were involved.

Even when such verification has been made, the auditor should still inspect warehouse receipts, since the absence of such receipts usually indicates that the inventory has been pledged as collateral.

Valuation of Inventories Under an Acceptable Method Which Has Been Consistently Applied

The assignment of dollar values to the units of inventory determined by physical count is usually referred to as "pricing" the inventory. When an inventory is priced at the lower of cost or market, two distinct sets of prices are involved. The first figure to be

determined will usually be the cost figure, and the auditor must satisfy himself that cost figures have been derived by some acceptable method which has been consistently applied. Should the client wish to change the method of costing, say from first-in, first-out, to last-in, first-out, the ending inventory should be priced on both bases. Then when the auditor qualifies his opinion because of the change in the method of costing, he can also set forth the actual dollar effect of the change on the financial statements. After the cost figures have been determined consideration must be given to the substitution of market values if they are lower than cost.

As to the auditor's responsibility for inventory pricing, the reader should recall that the auditor is primarily concerned with establishing the reasonableness of the client's representations as to the final inventory figure and the manner in which it was determined. Thus the auditor's examination of inventory pricing will ordinarily be limited to a review of the client's methods, coupled with sufficient tests to assure the auditor that the methods represented by the client as being in use were actually used. Only when the auditor finds that there is insufficient basis for accepting the client's representations will he undertake to make an extensive verification of inventory pricing.

Cost. The auditor's first step, as might be expected, will ordinarily be to ascertain what method of determining cost has been used, that is, Fifo, Lifo, average, standard, retail inventory method, or net selling price. If the method used in costing the current inventory differs from that used in costing the previous inventory, that significant fact should be noted in order that it will not be overlooked when the certificate is prepared. Next, the client's completed inventory sheets should be reviewed and items selected for the pricing test as specified by the audit program. Full data on the items selected should be listed in the working papers, as illustrated in schedule C-5. Ordinarily an effort will be made to select items of high total value, thus giving maximum coverage with a minimum of items, but a representative group of items of lesser value should also be selected for verification. Depending on the internal control and the resulting reliability of the client's records, the stability of prices, the relative importance of the individual inventory items, and any other modifying factors, the pricing test may cover as little as 1 per cent of the total inventory value, or as much as 90 per cent or even more.

To illustrate how the pricing verification of a test item selected as prescribed above might be handled, let us take a typical example and follow it through. Our client manufactures screw machine products and compiles costs on a job order basis. Inventories are accounted for under the first-in, first-out plan. The following item has

been recorded in the audit working papers for pricing verification after having been selected from the client's inventory sheets on a test basis:

Stock Number	*Description*	*Quantity*	*Unit*	*Cost*	*Extension*
418	1/4"x2" alloy studs	13	Gross	$2.66	$ 34.58
		50	Gross	2.58	129.00

The first step in the verification process should be to ascertain whether the cost shown agrees with the cost information recorded in the client's perpetual inventory record of finished goods. Reference to this record reveals that the most recent lot of these studs to be completed was produced under Job Order 3416 for 50 gross at a cost of $2.58 per gross. The preceding lot completed was J.O. 3351 for 100 gross at a cost $2.66 per gross. This information establishes the correctness of the inventory pricing to this point, but further verification of the cost figures must be made.

Since the two job lots represented in the ending inventory bear similar costs, and assuming that these costs are in line with the inventory record of costs on jobs completed earlier in the year, further verification of only one of the two jobs should be adequate. Since job number 3416 was completed most recently and comprises the bulk of the 63 gross on hand, selection of that job would be most logical.

The required records to complete the verification may be "pulled" by the auditor, but if the client is willing to have his employees do the work the audit fee will be lessened thereby. Retracing the client's costing process, the first record to be consulted would be the job cost sheet for J.O. 3416, which appears on page 247.

The first point the auditor should note in reviewing the cost sheet is that the unit of count shown therein agrees with the unit of count on the inventory sheet. An inventory count shown as 63 each but priced at the cost per dozen or per gross will substantially overstate the final inventory value. On the other hand, an item counted in dozens or gross but priced at the cost for each item will have the opposite effect.

Each of the figures shown on the cost summary should be traced to supporting records in order to establish that final inventory cost figures have been derived from properly maintained factual records. Stated in another way, the auditor's purpose is to ascertain that there is a complete set of connecting links beginning with payment for the goods or services used and ending with the final financial statement figure for inventory.

Materials. Requisition number 2953 may be inspected in support of the material cost, but since verification must go beyond the requisition, reference can be made directly to the perpetual inventory card

JOB ORDER COST SHEET — JOB ORDER NO. 3416

STOCK NUMBER 418 — DESCRIPTION 1/4" x 2" alloy studs

QUANTITY ORDERED 50 gross — DATE 12/14

QUANTITY COMPLETED 50 gross — DATE 12/18

COST SUMMARY

MATERIAL	$ 70.32
LABOR	27.30
OVERHEAD (115% X $ 27.30)	31.39
TOTAL	$ 129.01
UNIT COST PER gross	2.58

MATERIAL

DATE	REQUISITION NO.	QUANTITY	DESCRIPTION	UNIT COST	TOTAL COST
12/15	2953	120	10' x 1/4" alloy rods	$ .586	$ 70.32
				TOTAL MATERIAL	

LABOR

DATE	CLOCK NUMBER	HOURS	RATE PER HR.	TOTAL	DATE	CLOCK NUMBER	HOURS	RATE PER HR.	TOTAL
12/16	128	8	$ 2.38	$ 19.04					
12/17	128	2	2.38	4 76					
12/18	387	2	1.75	3.50					
								TOTAL LABOR	$ 27.30

which should show the withdrawal of 120 10′ × 1/4″ alloy rods. The following abstract of the perpetual inventory card shows that the withdrawal was correctly priced:

Date	*Req. or P.O. No.*	*Price*	*Received*	*Issued*	*Balance*
12/2		$.574			50
12/5	604A	.586	300		350
12/8	2940	.574		50	
		.586		50	250
12/15	2953	.586		120	130

Errors in pricing, particularly under first-in, first-out, can occur readily, however, and the auditor should be alert to such possibilities. For instance, in pricing and posting requisition 2940 the inventory clerk might easily overlook the fact that 50 units were still on hand at the old price of $.574. Had the entire issue of 100 been priced at the new figure of $.586, fifty of the units would have been overpriced $.012 each or a total of $.60. As a result, the raw material inventory would have been understated and the finished goods inventory overstated in the amount of $.60. Upon sale of the studs, net income resulting from the sale would be understated by the same amount. This error, in itself, would be insignificant, but as an indication that similar pricing errors might be present throughout the inventory, it would achieve greater importance. If other tests showed similar errors, the auditor would have to conclude that the client's inventory pricing method had not been properly applied. Since such a conclusion would make the client's representations as to the pricing of inventory invalid, the auditor would have to consider the probable over-all effect of such errors on the final inventory figure. Should he conclude that inventory and net income might be materially distorted, the client would have to be requested to recheck all inventory items for such errors and make an adjustment for the total amount disclosed. If the client declined to make the recheck and adjust the figures, the auditor would have to qualify his opinion with respect to the inventory figure in the financial statements.

Returning to the verification of the inventory pricing of the 63 gross of studs in the finished goods inventory, the final step in the verification of material costs should be to verify the price of $.586 by consulting the vendor's invoice covering the purchase of materials recorded on December 5, which included the 120 rods used in producing the finished studs. A separate section of the perpetual inventory card, not shown above, would contain a record of the purchase orders placed, giving the name of the vendor. With this information the appropriate invoice can be located in the paid invoice file, and the price verified against this externally created document.

The amount of work implied in the verification of this one item should suggest the practical need for accepting the client's representations on inventory pricing, rather than making a complete verification of inventory pricing. The few tests actually made are then solely

for the purpose of establishing the reliability of the client's representations.

Labor. The cost sheet shows all the details necessary to permit verification of the labor cost charged to the job. Assuming that the payroll week ends on December 18, the individual time cards supporting both labor charges should be filed with the time cards for that week. The cards should show that each worker worked on job 3416 for the number of hours shown on the cost sheet. To complete the verification, cards showing rate per hour authorized for each of the two workers can be inspected in the payroll department. Proof of the extension of the hours and rate verified as suggested above can then be made.

Overhead. The overhead of $31.39 allocated to the production of the lot of 50 gross of studs represents the application of the plant overhead rate of 115 per cent to the labor cost of producing the studs. The auditor should, of course, verify this calculation. But more important is the verification of the manner in which the 115 per cent rate was computed. In most instances the rate is set at the beginning of the year based on past experience. The auditor should determine the reasonableness of such an estimate by relating total labor cost for the year to total factory overhead expenses for the year, checking also to be certain that no change has been made in the classification and treatment of the various factory expense items. In most instances the actual burden rate so calculated will differ slightly from the predetermined rate used during the year. Inventory pricing of the individual items is seldom corrected for this difference. Instead, if the difference is not large, the corresponding over- or underapplied overhead expense is merely treated as a profit and loss item of the current year. Should the overhead variance be too significant to permit such a treatment, distortion of the financial statements can be avoided if the variance is "spread back" by a pro rata allocation to inventory and cost of sales. The auditor's problem, then, becomes one of ascertaining whether the client employed procedures which were proper under the existing circumstances.

Inventories Priced at Standard Cost. Many businesses keep their records on a standard cost basis to obtain added operating information and to simplify the accounting process. Some minor variations in audit procedure are necessitated by such records, but no major problems should result. The auditor's first concern when standard costs are used will ordinarily be the variances from standard produced by the year's operations. If the variances are not excessive and bear a reasonable relationship to previous experience, the auditor can be fairly certain that operations have progressed smoothly and that

the standards reflect current prices and production techniques. A few tests of the records should bear out this conclusion.

Excessive variances point to an opposite conclusion. Large price variances indicate that the standards do not reflect current prices, and large use variances suggest production changes that have not been embodied in the standards being used. Since production changes are ordinarily made for the purpose of increasing efficiency, excessive usage variances will tend to be credit balances. To obtain a fairly stated inventory figure, large variances should be apportioned between inventory and cost of sales and treated as corrections of those figures in the financial statements. Usage variances resulting from inefficiency in the plant would be an exception to the above recommendation. Such variances reflect actual losses and should be taken to the income statement as period expenses. Any variances which are not excessive may be treated as income statement items, regardless of cause, since net income will not be materially affected.

Apart from the question of how to treat variances from standard, the auditor's problem is simply one of testing final inventory prices against the client's book of standard prices and rates, and testing a representative group of entries in which actual costs are converted to standard. The purpose of testing these entries is to show whether the standards being used are current and to ascertain whether variances are being correctly recorded.

To illustrate the latter procedure, two typical situations are described. The first relates to the test verification of an entry to record the purchase of raw materials at standard. An entry is first selected from the voucher register for the purchase of some item of raw materials which is known to be represented in the final inventory. The credit to vouchers payable should be the total invoice price, the debit to raw materials should be the standard cost of the purchased materials, and any difference between these figures should be shown as a debit or credit in the variance column. Inspection of the appropriate invoice should show that the vouchers payable credit agrees with the invoice cost of the materials. Reference to the standard cost rate book should show whether the raw materials debit was based on the appropriate standard cost. Any difference between actual and standard can then be computed and traced to the recorded variance. Any excessive variances should be noted in the working papers since such variances indicate outmoded standards and a situation which the auditor must watch carefully.

Labor time, or usage, variance has been selected for the second illustration of how the auditor verifies standard cost records. If employees are paid on a piecework basis, the piecework rate will usually

be the standard labor cost figure. A variance will result only if an employee does not earn the guaranteed daily minimum pay. The foreman or supervisor will then prepare a labor ticket authorizing the payment to the employee of the amount of money necessary to bring the employee's earnings up to the guaranteed minimum. This amount is, of course, the labor time variance. The auditor should satisfy himself that the piecework rate on which the employee was paid agrees with the standard labor cost shown in the rate book used in pricing the inventory. The auditor should then calculate the variance between the worker's piecework earnings and his guaranteed daily minimum.

A standard labor hour plan is sometimes used instead of a piecework plan. Under such an arrangement, if the employee has produced at less than standard but has been guaranteed eight hours pay, the auditor should verify the conversion of the pieces produced to standard labor hours, the calculation of the difference between guaranteed and standard hours, and the application of the agreed-upon hourly rates to that difference to determine the labor time variance.

Pricing Verification of Work-in-Process Inventories. Work-in-process inventories present no problem if the client is using a standard cost system. During his observation of the physical inventory count, the auditor should note that count tickets accurately list the parts or materials which are represented in each lot of work-in-process items selected for test. Since additional parts or materials may have to be added before the product is complete, failure to specify what items have already been added to the lot might result in the assumption that all necessary parts or materials were present, with inventory overstated as a result. Similarly, each operation which has been completed should be listed on the count ticket so that the final inventory figure will include only the cost of those operations.

When job costs are used, the materials which have been issued to each job can be ascertained much as was suggested above under standard cost procedure. The cost of labor which has been added to a job must, however, be accepted largely on the basis of the labor cost shown on the job cost summary, subject to verification of the year-end cut-off of these charges. The over-all reasonableness of the costs shown for each job in process can be tested by reviewing the total costs on the jobs when they are finally completed. If total costs are in line with costs on similar jobs completed at prior times, the presumption should be warranted that costs charged against uncompleted jobs at the balance sheet date are fairly stated.

Market. The following excerpts from the pronouncements of the

American Institute of Accountants summarize current thinking pertaining to the pricing of inventory at less than cost:

> A departure from the cost basis of pricing the inventory is required when the utility of the goods is no longer as great as their cost. 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 deterioriation, obsolescence, changes in price levels, or other causes, the difference should be recognized as a loss of the current period. This is generally accompished by stating such goods at a lower level commonly designated as *market.*
>
> The rule of *cost or market, whichever is lower* is intended to provide a means of measuring the residual usefulness of an inventory expenditure. The term *market* is therefore to be interpreted as indicating utility on the inventory date and may be thought of in terms of an equivalent expenditure which would have to be made in the ordinary course at that date to procure corresponding utility.*

In the light of these comments, if the auditor intends to assert that his client's financial statements have been prepared in accordance with generally accepted accounting principles, his verification of inventory pricing must go beyond the figures for inventory cost. Two problems are evident in this additional matter of reducing inventory to market value when utility has diminished. The first is the recognition of such a situation when it occurs, and the second is the determination of the market value figure to be used to reflect the decreased utility.

Ascertaining the Existence of Declines in Market Value. The problem of detecting decreased market values is one of the best illustrations of the fact that a competent audit must go well beyond the confines of the client's accounting department. Determining the existence of unrecorded obsolescence is an example. Certain industries operate under conditions of constant style or model changes, and knowledge that such a situation exists should place the auditor on his guard in watching for market declines. In other cases change takes place very slowly, but the auditor should always watch for products which have been dropped from the client's line of merchandise or are beginning to move very slowly. Careful review of perpetual inventory records will usually reveal such instances. Further investigation is warranted whenever the inventory quantity of an item becomes excessive in relation to recent withdrawals or sales. If such conditions become widespread in the client's business, they will also be evident in reduced inventory turnover calculated

* Restatement and Revision of Accounting Research Bulletins, pp. 30-31.

on an over-all basis. Constant or increasing inventory figures in the face of declining sales are almost a sure sign that an inventory problem exists.

The auditor must also be alert to evidence of obsolescence or physical deterioration during the period of observing the physical inventory count. Crushed boxes, broken pieces, scratched or oxidized metal surfaces, and dusty items stored in inaccessible locations are all signs that a write-down to market value may be in order.

Direct observation of existing conditions should always be supplemented by discussion with any employees or officials who should be acquainted with the condition of the inventory. These would include the supervisor of the stock room, the purchasing and sales managers, the treasurer, and even the president.

Most of the officials just mentioned should also be able to supplement the auditor's knowledge of current market prices of both purchased materials and the concern's finished product. General conclusions about price levels must, however, be confirmed by test comparisons between current prices and those in effect six months or a year before.

Determining Market Price. If the auditor's inquiry and observation have shown that the reduction of inventory items to market value is a problem, the auditor's next step is to determine whether the client has properly computed and used the reductions to market value. The total inventory should be figured both at cost and at the lower of cost or market. By computing both totals the client can separate the effect of inventory write-downs from the inventory variance resulting from other causes. Such information gives the client better control and enables the auditor to obtain a clearer picture of what has actually occurred.

The bulletin on inventory pricing released in 1947 by the Committee on Accounting Procedure of the American Institute of Accountants pointed up certain shortcomings in the generally accepted method of determining market price at that time and presented a method for determining market price which was more equitable and precise. Prior to the issuance of that bulletin, "market" was generally taken to be current replacement cost by either purchase or reproduction. Although the committee agreed with such a basis in general, it added two important exceptions to the use of replacement cost. Although the exceptions were not original with the committee, they were seldom observed by accountants and auditors in their work.

One exception dealt with the situation wherein decreasing sales prices for a product were not accompanied by corresponding price

decreases in the market in which the product or raw materials for its manufacture were purchased. Under the old basis of valuing inventory at replacement cost an inventory item might be carried at a figure little changed from its original cost, although sale of the item to a customer might return less than that amount after considering costs of making the sale. The result, of course, would be to carry inventory at a figure which would include an unrealized loss. Such a situation violates the general rule that all losses should be provided for, and accordingly fails to recognize the reduction in the residual usefulness of the inventory item. Although replacement costs seldom move downward at a slower rate than selling prices, such a condition occurs occasionally, and the Committee on Accounting Procedure recommended that the exceptional situation be provided for by adding a stipulation to the general use of replacement cost. It was recommended that inventory be valued at net realizable value should that figure be less than replacement cost. Net realizable value was defined as estimated sales value less any costs of completion or disposal.

The second exception to the use of replacement cost also deals with an abnormal situation. Occasionally replacement costs may fall while sales prices remain constant or fall at a slower rate. Under such circumstances use of replacement cost results in the recognition of a loss in one period and the production of an abnormally large profit in the following period when the sale occurs. To avoid such shifting of profits between periods the committee recommended that inventory not be reduced to a price lower than net realizable value less the normal margin of profit.

Testing Reductions of Inventory to Market Value. The auditor must, of course, ascertain that market prices, used when inventory is to be valued below its original cost, have been properly determined by the client. The auditor's first step should be to determine current replacement cost for those items which he selects for test. (The test should include some items which the client has continued to carry at original cost.) Information on current replacement cost may be obtained from many possible sources, although ordinarily only one best source will be used in connection with any single item.

For materials which are traded on organized commodity exchanges, market quotations at the close of business on the balance sheet date are obviously the best indication of current replacement costs. For other materials, current price lists issued by principal suppliers should be consulted if available. When price lists are not available, the cost of the latest purchase of the inventory item may be used if the elapsed time from the date of purchase to the balance sheet

date is not too great, and if price changes during the intervening period would tend to be insignificant. In the absence of a recent purchase and any other information, written requests to one or more vendors for current price quotations may be in order. Ordinarily the auditor need not be concerned about net realizable value and normal profit margins, but these figures also must be verified on a test basis when abnormal price movements have occurred.

The above considerations pertaining to the use of market price apply also to firm purchase commitments not protected by firm sales contracts. Losses on such commitments should be recognized just as if the goods were actually on hand. The account credited when such losses are recognized may be classified as a current liability. As has been previously stated, the total amount of purchase commitments should be disclosed by a balance sheet footnote if the commitments are abnormal.

Proof of Accuracy of Clerical Operations

The last objective to be discussed in connection with the auditor's verification of inventory is the final link in the chain of verification which begins with the physical quantities of goods in the inventory and ends with the final dollar total shown in the client's financial statements. The objective deals with the verification of the relatively mechanical processes involved in arriving at the final dollar figure for inventories: transcribing, extending, and footing.

Transcribing. If the physical counts are recorded on count sheets which provide space for pricing and extending dollar amounts, no transcribing of count figures is required. In most instances, however, individual count tickets for each inventory item will be used in order to facilitate the counting process. Another advantage of using tickets is that they may be sorted by department, by class of material, or in sequence according to the stock or part number of each item, thus making it easier to price the inventory. Once the sorting has been accomplished the information from the tickets can be copied onto the final inventory sheets.

It is this copying process which the auditor must test, since he must be satisfied that the count tickets which he observed being prepared were actually the source of the information shown on the count sheets and that the transcribing of information from tag to sheet was accurately performed. Perhaps the first test to be made by the auditor should be the comparison of the counts recorded in his working papers with the corresponding information shown on the inventory sheets. Needless to say, no differences should be found in

making this test. If differences do occur, careful investigation is essential, and satisfactory explanations must be obtained. For instance, the explanation that an additional quantity of an item was found in another location and added to the original count should be fully investigated by the auditor. The auditor should visit both the original and the new locations, count the quantities then on hand, and reconcile them with the quantities represented as being on hand at the count date.

In addition to tracing his own counts to the inventory sheets the auditor should test the actual count tickets against the information recorded on the sheets. If a large inventory is involved and internal control is satisfactory, a test of as few as 5 per cent of the items selected at random may be adequate. Statistical techniques can be helpful in determining sample size and interpreting the results of such tests. If the conditions underlying the preparation of the inventory sheets are not ideal, the need for more extensive tests should be evident. Very weak internal control and the existence of inventory items of substantial value might easily warrant tests covering 90 per cent or more of the total dollar value of the inventory.

Extensions and Footings. Auditors often employ comptometer operators to verify extensions and footings on the inventory sheets in order to obtain maximum coverage at minimum expense. On the other hand, some businesses employ outside concerns to foot and extend their inventory. In such cases the auditor may accept a statement from the computing concern asserting that the work had been done and guaranteeing its accuracy. Only very limited tests by the auditor would then be necessary.

The usual situation, however, finds the auditor making the tests himself, the tests ranging all the way from statistically sound minimum samples to almost 100 per cent verification, depending on the circumstances. As the coverage increases in scope the auditor in effect assumes additional personal responsibility for the accuracy of the final inventory figure. To keep the cost of such verification at a minimum the auditor will usually concentrate on the inventory items of largest value so that by verifying as few as 50 per cent of the inventory items he may often be able to verify as much as 90 per cent of the dollar value. Such selection protects the auditor against the possibility of overlooking a material overstatement of inventory. The auditor must also testify as to the over-all accuracy of the client's records, however, and as a consequence inventory items of lesser value must also be included in the auditor's sample.

The concentration on items of larger value suggests that the auditor is principally concerned with the possible overstatement of

inventory. Even though the relative risk in most situations tends to point toward that possibility, the conditions are sometimes reversed. If relative risk suggests that the inventory may be understated, a more extensive sampling of items of lesser value is in order.

As a supplement to the precise verification of extensions or page totals, auditors often use the technique of "scanning" to increase their protection against material misstatement of the inventory resulting from calculation errors. Inventory extensions can be scanned quite rapidly for obvious errors in calculation or misplaced decimal points. Similarly, items comprising a page total can be quickly scanned to ascertain that the total appears correct to the nearest hundred or thousand dollars.

If each inventory page is separately totaled and then the totals are recapped, the auditor will usually make a 100 per cent verification of the recapitulation of the page totals. Occasionally, however, an inventory may involve a thousand or more pages, and in such cases the inventory will usually be broken down by department. The auditor may then satisfy himself by selecting at random several departmental inventories and proving the recapitulation of page totals for those departments for his test. Of course all departmental totals should be traced to the final, over-all inventory recapitulation.

Postscript

By now the reader should be well aware of the complexity of the auditor's job in satisfying himself as to the fairness of the client's inventory figure. Coupled with this problem of complexity is the fact that inventory is often one of the major assets on the balance sheet. The inventory figure also offers maximum opportunities for intentional or unintentional errors which may materially affect net income. To meet adequately the challenge to him embodied in the inventory figure, the auditor must never lose sight of his principal objectives. He must remember that in most instances, assuming some degree of internal control, his principal concern is to satisfy himself that the representations of management have been carried out in the determination of the inventory figure. Only when internal control is extremely weak will the auditor be required to make more extensive verification of the inventory figure.

One important objective relates to the determination of the validity and reliability of the client's inventory records and the cut-off at the date of the balance sheet. Concerning the physical inventory, the auditor must satisfy himself as to its actual existence and the manner in which it was counted, priced, extended, and footed. The ex-

tent of all tests made by the auditor should be summarized in the working papers to facilitate supervisory review and evaluation of the tests in relation to generally accepted auditing standards. Once the auditor begins his tests of the final inventory sheets, those sheets must remain under his custody and control until all the tests have been completed. Failure to follow such a precaution would constitute gross negligence on the part of the auditor, since it would allow management or employees to make alterations which might conceal the true inventory position.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of inventory appearing in *Case Studies in Auditing Procedure,* Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Sales	$800,000
Cost of sales	550,000
Net income	53,000
Inventories	231,500
Total current assets	453,000
Total assets	565,000

Perpetual inventory records covering most inventory items are maintained showing quantities only. The records are used primarily to aid in purchasing, production, and selling. Cost records maintained by cost estimating personnel are not tied in with the general ledger.

The inventory counts were made by operating employees who completed prenumbered inventory tags and attached them to the material. Representatives of the auditor circulated through the plant and observed the counting process. Whenever a department had been completely counted, the department supervisor and a member of the auditor's staff made test counts and removed the inventory tags. Working paper records of the test counts were made by the auditor. The auditor controlled the count tags until all tags had been accounted for. Company personnel compared the tags with the perpetual inventory records, and if substantial differences were disclosed a supervisor and a member of the auditor's staff made recounts.

The pricing of raw materials, which comprised the major item of inventory, was substantiated by examination of recent invoices. The cost of work in process and finished parts was traced to records maintained by the

cost estimating section. The cost records were in turn reviewed to establish the fact that they reflected current material and labor costs and that factory burden rates used did not differ materially from the actual burden rate for the year. Cost prices were further compared with market prices and the prices of current sales orders. Footings and extensions were thoroughly checked.

[*Author's Note:* Although the case study discloses only the above information, the following additional comments and estimates are added to give the reader a more concrete picture of the extent of the work that was probably performed by the auditor's staff. Tests of the cut-off of materials received and finished product shipped would probably cover all major incoming and outgoing movements for the last five days prior to the audit date, and perhaps the first two or three days following the audit date. Test counts of perhaps 40 per cent of the inventory items representing about 80 per cent of the inventory value would probably have been made. Pricing tests would be expected to be equally extensive, and the verification of footings and extensions might cover an even greater percentage of the items and dollar value.]

Case B (Loading and Hauling Equipment Manufacturer)

Sales	$4,500,000
Cost of sales	3,400,000
Net income	370,000
Inventories	1,850,000
Total current assets	2,491,000
Total assets	3,438,000

Perpetual inventory records are maintained covering raw materials, work in process, and finished goods. These records show costs on a first-in, first-out basis, and are tied in with the general records. The company is on a December 31 fiscal year.

On May 10 of the year being audited the client notified the auditor that a physical inventory would be taken on May 31, and a copy of the inventory instructions was submitted for the auditor's approval. The plant was closed on May 20, and the remaining days of the month were utilized in housecleaning and arranging materials to facilitate the count. All completed orders were shipped before counting began, and all materials received during the shutdown were stored in a special location away from the items to be inventoried.

Prenumbered inventory tags were used in making the inventory count. In each department the foreman and a representative from the production control department filled out the tags, showing part number, description, and stage of completion, attaching each tag to the inventory materials as the tag was completed. The materials were then counted twice by two

separate crews, each crew initialing its count figure. If the second count did not agree with the first count, the foreman was notified immediately, and he in turn appointed a third crew to make a recount. Obsolete, spoiled, scrapped, or inactive materials were counted on the tags, but the tags were to be clearly marked to indicate the condition of the materials. When counting was completed a representative of the cost department and a representative of the production department toured the plant to ascertain that everything had been counted. These representatives then detached the tags and accounted for all tags issued.

Representatives of the auditor were on hand to observe that the inventory counting was handled according to the instructions which had been issued. They also made test counts of inventory items having a large dollar value, items which appeared difficult to count, and items on which the count on the tag appeared to be over or under the materials at hand. Working paper records were made of these test counts, which covered about 65 per cent of the total inventory dollar value.

The client's final inventory sheets prepared from the count tags were verified as follows. Count figures shown in the auditor's working papers were compared with the quantities shown in the client's inventory sheets, and the unit price and total amount were inserted in the working papers for each item which the auditor counted. The client's staff was then instructed to remove from the files most recent invoices covering quantities equal to or exceeding the quantities of each item of material listed in the inventory. Invoice data as to unit cost and freight were placed on the auditor's work sheets by the client's staff. The auditor's staff then compared this cost information with the invoices and with the recorded inventory cost figures copied from the final inventory sheets, noting any discrepancies in the pricing of the inventory. Differences were called to the client's attention for correction. Market prices were also obtained and noted in the work papers for significant items.

For work in process and finished goods which were test counted, job cost sheets and cost cards were obtained. Material costs shown on these records were compared with raw material prices determined by the test of raw material prices. Labor costs were traced to labor distributions, and overhead applied was compared with the actual percentage of overhead to labor.

After verification of the inventory pricing, each extension of $200 or more appearing on the inventory sheets was verified and items under $200 were scanned. Each inventory page was footed, and these totals were recapped and balanced with the client's final inventory figures, which were in turn traced to the client's journal entry adjusting the book inventory to agree with the physical inventory.

At December 31 the following procedures were employed to complete

the inventory verification. Detailed inventory records were totaled and compared with general ledger controlling accounts. Raw materials inventory cards were reviewed to ascertain that the quantities shown were compared with the actual quantities on hand at least once between May 31 and December 31. Quantities of raw materials and finished goods on hand on January 9 were tested for about 25 per cent of the inventory. For the items selected, the actual materials or finished product on hand were counted and compared with the inventory records. Significant differences were called to the client's attention for investigation and correction. All quantities added to or subtracted from the inventory records selected for test during the period from January 1 to January 9 were traced to invoices, material requisitions, cost data sheets on completed jobs, or shipping records. Raw materials costs were compared with costs at May 31, and finished goods costs were traced to completed job cost sheets.

About 75 per cent of the work in process inventory was tested in the following manner: after balancing the cost sheets with the work in process controlling account, extensions and footings on each of the cost sheets were proven. Materials charged to the various jobs were traced to materials requisitions, and unit prices were traced to the perpetual inventory records. Labor was traced to payroll distributions, and overhead applied was compared with the actual ratio of overhead to direct labor.

As a further over-all review of changes in the general ledger perpetual inventory accounts, the percentage relationship of cost of sales to sales was computed for each product for each month from June to December. Variations were noted and discussed with the controller.

The inventory verification work described above required 49 per cent of the total time to complete the audit engagement.

Case C (Department Store)

Sales	$12,000,000
Cost of sales (including selling and operating expenses)	10,500,000
Net income	750,000
Inventories	2,800,000
Total current assets	4,300,000
Total assets	5,600,000

Inventories are maintained on a perpetual basis in the general ledger by use of the retail inventory method, with separate accounts for each department. Mark-on percentages are developed from a statistical record which is compiled from figures provided by the accounts payable department, the sales audit department, and the selling departments. The selling departments provide information on markups and markdowns.

At a preliminary date the auditor reviewed the client's system of mark-

ing and preparing price tags and recording price changes, in order to ascertain that the procedures actually in effect were as represented. In addition, purchases and sales recorded in the statistical record were traced to source records for each department for one month, and individual purchases were reviewed for a two-week period for instances in which the mark-on percentage was materially below the departmental average. These cases were investigated to determine that errors had not caused the deviation from typical departmental percentages. Month-to-month departmental mark-on percentages were also reviewed, and material variations were investigated.

Physical inventories were taken principally on the two week ends preceding the close of the fiscal year at January 31. Reserve and warehouse stocks were counted during business hours, whereas stocks on the selling floors were not counted until after the close of business. No merchandise was to be moved from reserve and warehouse stocks to the sales floor from the time the reserve and warehouse stocks were counted until the merchandise on the sales floor was counted. Merchandise received from vendors during this period was retained in the receiving room.

Counting was done by teams made up of two employees—one counting and the other recording the count on prenumbered lists which were left with the merchandise. A second team surveyed these lists, making recounts of about 50 per cent of the items listed and countersigning the lists. The lists were then gathered, checked for numerical sequence, and turned over to the inventory manager. Members of the controller's department then selected lists for about 5 per cent of the departments and rechecked about 10 per cent of the items on those lists, including warehouse, reserve, and floor stocks.

The auditor reviewed the inventory instructions to ascertain that planning was satisfactory, and then stationed nine staff assistants in the various departments to observe the inventory counting. The purpose of these observations was to corroborate the credibility of management's representations.

Since the departmental inventories were taken at various times during January, book inventories had to be computed up to the date of count in each department. The client used a reconciliation form for this purpose, beginning with the January 1 book inventory and adding and subtracting totals for the various types of transactions occurring between January 1 and the inventory date for each department. These reconciliations were footed and crossfooted by the auditor, and 5 per cent of the reconciling figures were traced to the daily totals from which those figures were derived.

The book inventory figures determined as described above were compared with physical inventory totals to determine the adjustments to be

made to general ledger inventory balances at December 31. Shortages or overages which were large in amount or substantial in relation to sales were investigated by the auditor.

Departmental cut-offs were tested at both the physical inventory date and the balance sheet date by inspecting receiving numbers on purchases over $1,000. These numbers were then checked against the last receiving number issued at January 31, to determine whether the purchase was recorded in the same period that the merchandise was received. Departmental daily sales totals at cut-off dates were traced to the corresponding figures in the sales audit department.

Tests of extensions and footings in the departmental physical inventory records were very limited because this work had been performed for the client by an outside service agency. A comptometer operator on the auditor's staff made the following tests. Extensions and footings on 2½ per cent of the inventory pages were verified to the nearest $100. The totals on 5 per cent of the pages were traced to book summaries, and 20 per cent of the book summaries were footed to the nearest $1,000. All book totals were traced to departmental summaries, and all departmental summaries were footed to the nearest $1,000.

The preceding work relates to the verification of the physical inventory at retail price. The reduction of the inventory to the lower of cost or market was accomplished through the use of the mark-on percentages developed in the statistical records. The client provided a summary of the statistical records showing purchases and sales for each department for the year. Totals for all departments were traced to the general ledger. Making certain that markdowns were not taken into account, the auditor verified the computation of the percentage of mark-on for each department. These percentages were then compared with those for the previous year, and variations of more than 3 per cent were investigated. The application of these percentages to the inventory at retail was then verified.

To discover the possible existence of excessive inventories or unsalable merchandise, a comparison of sales, inventory, and purchase commitments was made for each department and the relationships compared with those for the preceding year. Also, the client's aging of the items in the physical inventory, classified as to under six months, six to twelve months, and over twelve months, was reviewed for the existence of excessive amounts of slow-moving stock. The auditor investigated such conditions to determine whether markdowns had been taken in order to move the old merchandise.

Since inventory figures under the retail method will be reduced to the lower of cost or market only if necessary markdowns have been properly taken and recorded, markdowns for each department were reviewed. Ten departments showing markdowns contrary to the general

trend were selected for further investigation. February newspaper advertisements and markdowns in February were reviewed for the possible existence of substantial markdowns which should have been recorded in January. All unusual situations were discussed with the controller and the particular merchandise manager involved.

C
Memo
(1 of 2)

Machine Products Co.
Summary of Inventory Verification

WFS
1/20/57

12/31/56

Tested by us	Raw Materials	W.I.P.	Finished Goods	Supplies
Physical quantities per C-5	27%	22%	22%	14%
Pricing per C-5	34%	27%	26%	17%
Extensions + footings per C-6	53%	47%	58%	45%

(Remaining items were scanned)

Quantities

We reviewed in advance client's instructions for physical inventory count to be taken at the close of business 10/31/56. Material was stored in an orderly fashion at the time of count, permitting accurate counts to be made. We observed that employees were conscientious in making the first and second counts as prescribed by the inventory instructions. Our test counts covered primarily items of substantial value, representing about 25% of the total inventory value, We accompanied the inventory supervisor and inspected each department before permission was given for count tags to be pulled. Every effort appeared to have been made to obtain an accurate count and our tests indicated that these efforts were successful.

The receiving and shipping departments were inspected and we noted that inventory cut-off instructions had been followed. We also tested the accuracy of the cut-off by comparing dates of book entries with dates on supporting tickets covering inventory movements at both October 31 and December 31.

Pricing

About 30% of the entire inventory was price-tested by comparison of prices on the final inventory sheets with the client's standard cost rate books. These sheets were kept under our control during the entire period when pricing and clerical accuracy tests were made by us.

The reasonableness of the figures in the standard cost rate books is indicated by the nominal amounts of inventory material and labor price variances resulting from the use of the standard rates. As a further test of the standards we made detailed tests of variances recorded in March and November. Actual material prices and labor rates were compared with the standard

Machine Products Co
Summary of Inventory Verification
12/31/55

Memo (2 of 2)

WFS
1/20/56

rates and variances were computed and traced to the corresponding figures in the client's records. Such variances were infrequent and nominal in amount when they did occur, thus further confirming our conclusion that the standard rate books reflect current prices and labor rates, and that material usage and labor time standards have been fairly determined. Market prices of materials and labor rates have held steady during the year. Obsolete stock was priced at net realizable value.

Clerical Accuracy

All quantities noted in our test counts of inventory were traced to the client's final inventory sheets, no exceptions being noted. As a further test of the validity of the quantity figures shown, two of the items with the largest dollar value on each page were traced to the original count tickets.

Complete verification was made of extensions and the footing of every other inventory page, and the recap of page totals was proven. In addition, the extensions and footings on those pages not selected for complete verification were scanned for any material discrepancies.

C

Machine Products Co.
Inventories - Summary

J.A.S
1/8/57

12/31/56

	Index	Final 12/31/55	Per Books 12/31/56	Adjustments Dr	Adjustments Cr	Final 12/31/56
Raw materials	C-1	914 641 87	1123 456 18	① 80 000 00		1 203 456 18
Work in process	C-2	481 216 93	627 415 66	②	(21 132 47)	606 283 19
Finished goods	C-3	195 147 52	119 766 58	②	(4 073 73)	115 692 85
Supplies	C-4	75 219 81	76 418 91			76 418 91

Analysis of Inventory Components and Changes during 1956

	Raw Materials	Work in Process	Finished Goods	Supplies
December 31, 1955				
Material	914 641 87	145 041 67	60 426 45	75 219 81
Labor	—	152 806 93	61 236 85	—
Overhead (120% labor)	—	183 368 33	73 484 22	—
Totals	914 641 87	481 216 93	195 147 52	75 219 81
December 31, 1956				
Material	1123 456 18	195 199 63	38 539 24	76 418 91
Labor	—	196 461 83	36 921 52	—
Overhead (120% labor)	—	(235 754 20)	(44 305 82)	—
Adj. J.E.	① 80 000 00	② (21 132 47)	② (4 073 73)	—
Totals	1 203 456 18	606 283 19	115 692 85	76 418 91
Increase or (Decrease)				
Material	288 814 31	50 157 96	(21 887 21)	1 199 10
Labor	—	43 654 90	(24 315 33)	—
Overhead	—	31 253 40	(33 252 13)	—
Total	288 814 31	125 066 26	(79 454 67)	1 199 10

C-1

Machine Products Co
Raw Materials

WFS
1/13/57

12/31/56

	Raw Materials Inventory	Material Price Variance
Book balance 10/31/56 before adjustment	1,198,361.35	35,419.23
Adjustment for inventory shortage C-1/1	121,046.23	
Balance after adjustment	1,077,315.12	
Purchases - November	264,701.18	2,636.22
December	245,315.28	3,153.18
Materials returned to stock - November	2,451.83	
December	1,253.18	
Total	1,591,036.59	
Transferred to work in process November	(225,061.35)	
December	(242,519.06)	
Book balance 12/31/56	1,123,456.18	41,208.63
		to 20
Plus our adjusting entry No. ①	80,000.00	
	1,203,456.18	
	to C	

All entries to the above accounts in November and December were traced to their source and the source records reviewed for unusual items. None were noted.

The amounts shown for purchases and transfers to work in process are in line with corresponding figures for previous months and the months of November and December of last year.

In view of the relatively good internal control and the general accuracy of the records, as evidenced by the smallness of the inventory shortage adjustment as compared with the amount of materials handled, no objection was raised to the continuation of the practice of previous years whereby no provision is made for possible inventory shortages arising in November and December.

C-1
1

Machine Products Co.
Raw Materials Inventory - Adjustment to Physical

12/31/56

WFS
1/14/57

	Raw Materials Book Inventory	Raw Materials Physical Inventory
Unadjusted balance 10/31/56	1,198,361.35	1,088,350.80
Materials purchased and entered in voucher register in October, received in November		3,406.51
Materials received in October, not entered in voucher register until November	5,896.05	
Excess production materials returned to stock in October, book entry in November	1,246.39	
Materials issued on Production Order 1856 in October, order entered in November	(952.18)	Also see C-2/1
Obsolete parts inventoried at cost, reduced to net realizable value		(8,251.93)
	1,204,551.61	1,083,505.38
	1,083,505.38	
Inventory shortage per client	121,046.23	to C-1
Our adjustment for prepayment to Acme Foundry, not shown above J.E. (1)	80,000.00	
Inventory shortage as adjusted	41,046.23	
	Per 20	

NOTE

The reconciling items shown above were determined by the client and verified in the course of our tests of the cut-off on materials received and issued. For our test we selected entries at random as follows:

	Last 5 days in October	First 5 days in November
Entries for purchase in voucher register	10	10
Entries for materials put into process	10	10
Entries for materials returned to stock	3	3

The only reconciling item noted in the above tests which had not been included in the client's figures was an advance of $80,000 to Acme Foundry Co. This resulted from a special arrangement to aid Acme, and the entire advance was offset by castings billed by Acme in Nov. and Dec.

Adjusting entry No. (1)	Raw Materials Inventory	80,000.00	
	Raw Materials Inv. Variance		80,000.00

Machine Products Co.
Inventory Quantity and Pricing Tests

12/31/56

WFS
10/31/-

Inventory Tag Number	Part, Sub-assembly or assembly Number	Last Operation Completed	Description	Quantity per our Count
Totals brought forward				
1423	18206	—	Lathe beds, 10' for 24" swing	368 u
1876	9403	—	Gear blanks	565 u
903	23761	5	Frame, 1/2" drill press	200 u
2118	2361	—	1/2 H.P. Century Elec. motors	428 u
3241	SA 193	12	Gear box	97 u
4615	SA 364	31	Turret for 8" lathe	125 u
134	A 806 B	42	12" lathes, 8' beds	10 u
318	A 239	all	6" grinder, with motor	30 u
5192	S 904		Coolant, 50 gal. drums	9 u
	Totals			
Additional items selected for price test, per C-6				
Total price tested against standard rate books				
Adjusted book inventories at 10/31/56				
Per cent test counted				
Per cent price tested to standard rate books				

u Traced to counts shown in client's final inventory sheets, after sheets placed under our control.

O The standard cost rate books contain standard costs for all purchased raw materials or parts. For parts in process and sub-assemblies, the standard material cost is listed followed by the standard labor cost for each operation performed. A sub-total for these costs is shown after each operation, and this sub-total is used in pricing work in process according to the last operation number performed.

Cost per Standard Rate Book ①	Cost per Client's Inventory Sheets	Raw Materials	Work in Process	Finished Goods	Supplies	Differences Noted in Inventory overstated (understated)
		280491 56	125 415 93	26643 05	10 204 76	1 046 23
17.350	17.350	6 384 80				
.652	.652	368 38				
3.976	3.976		795 20			
16.570	16.570	7 091 96				
6.837	6.837		663 19			
19.204	19.204		2 400 50			
691.268	691.268		6 912 68			
65.041	65.041			1 951 23		
10.83	10.83				97 47	
		294 336 70	136 187 50	28594 28	10 302 23	1 046 23
						②
		78 219 23	31 219 87	6 249 91	2 415 81	
		372555 93	167 407 37	34 844 19	12 718 04	
		C-1	C-2	C-3	C-4	
		1 083 505 38	614 285 51	132 456 91	73 219 56	
		27%	22%	22%	14%	
		34%	27%	26%	17%	

② Differences noted in our tests were minor in amount and did not impugn the overall acceptability of the client's final inventory figures.

Adjustment of the differences disclosed was passed inasmuch as the amount was not material.

Machine Products Co.
Adjustment of Overhead Applied to agree With Actual Overhead Expense

12/31/56 WFS 1/14/57

During 1955 an overhead rate of 120% of direct labor was established. Use of this rate produced only a nominal variance between overhead applied and actual overhead expense, so the same rate was used in 1956. Increased production and better expense control in 1956, however, resulted in a credit variance representing excess of overhead applied over actual overhead expense of $254,608.12.

Since inventory and cost of sales would be overstated if the above credit variance were allowed to stand, the following calculation has been made in order to allocate the excess overhead applied to inventory and cost of sales on a pro-rata basis.

Total overhead applied to inventory and cost of sales during 1956		2 838 504 86	
Actual overhead expense for 1956		2 583 896 74	
Overapplied overhead to be allocated		254608 12	
Total direct labor in cost of sales for 1956		2 346 081 15	
Less direct labor in inventory 1/1/56			
Work in process	152 806 93		
Finished goods	61 236 85	214 043 78	
Total direct labor applied to cost of sales in 1956		2 132 037 37	Per cent 90.1
Direct labor in inventory 12/31/56			
Work in process		196 461 83	8.3
Finished goods		36921 52	1.6
Total direct labor, 1956		2 365 420 72	100.0

Adjusting Entry No. (2)

Factory Overhead Applied	254608 12	
Cost of sales- Overhead (90.1% X 254,608.12)		229401 92
W.I.P. Inventory- Overhead (8.3% X 254,608.12)		21 132 47
Fin. Gds. Inventory- O.H. (1.6% X 254,608.12)		4 073 73

Machine Products Co C-8
Year End Cut-Off of Purchases and Cost of Sales
WFS
12/31/56 1/20/57

No test was made at the year end of the cut-off of transfers from raw materials to work in process or from work in process to finished goods. Cut off errors in recording such transfers would not affect net income or liability accounts, but would merely cause a shift between inventory accounts.

For the test of the cut off of purchases, 20 items were selected from the receiving department pro register which were received during the last 3 days of 1956. The items were traced to the record of each purchase in the voucher register. All but three of these entries appeared in the December voucher register. These three appeared in January and have been listed on schedule BB-2 for further analysis in connection with our search for unrecorded liabilities.

For the test of the cost of sales cut off, 20 shipments made during the last three days of December and 20 shipments made during the first three days of January were selected for test from the shipping department pro register. Without exception each shipment was included in the client's cost of sales summary for the month in which shipment was made.

Review Questions

1. What changes had occurred in business about the time of the McKesson and Robbins case which made it possible for public accountants to absorb the additional year-end work required by extending their audit examinations to cover the physical existence of inventories and inventory quantities?

2. Why do businesses sometimes exercise less internal control over inventories than over such items as cash or accounts receivable?

3. What responsibilities are likely to be assigned to the accounting department in connection with attaining good internal control over inventories?

4. Under what circumstances may it be permissible for an inventory stockroom custodian to participate in the taking of the physical inventory?

5. List the various reports which will be useful to the management of a large business in evaluating the performance of employees responsible for purchasing and handling inventories.

6. State the objectives of the internal auditor in making an examination of the purchasing department.

7. What are the requirements of the minimum standards of statement presentation for inventories proposed in this chapter?

8. What are the auditor's objectives in verifying the dollar amount of inventories to be shown in the financial statements?

9. How does the effect of errors in the cut-off of purchases vary as between the perpetual and the periodic inventory method?

10. How does the auditor verify the purchases cut-off?

11. Does securing a proper cost of sales cut-off under the periodic inventory method involve any problem?

12. What are the various causes which the auditor might find to be responsible for a change in the rate of gross margin realized by a client?

13. Is it correct to say that as a general rule the auditor verifies the client's inventory figure?

14. Summarize briefly the manner in which the auditor satisfies himself as to the physical existence of the inventory and inventory quantities.

15. Why should the auditor record his test counts of inventory quantities in the working papers?

16. How is the problem of cut-offs changed when inventories are counted continuously during the year rather than all at the end of the year?

17. What additional problems are created if the physical inventory is taken prior to the balance sheet date rather than at the balance sheet date?

18. What should the auditor do if part of a client's inventory is stored in a public warehouse?

19. When a client decides to change the method of costing inventory, why should the closing inventory in the year of change be costed under both the old and the new bases?

20. List the various records and supporting documents which might be examined in support of the pricing of an inventory item manufactured under a job cost system.

21. How should the auditor verify the pricing of materials when standard cost records are used?

22. When the utility of goods in inventory has decreased, how is the utility measured at the balance sheet date?

23. How can perpetual inventory records be used in ascertaining that a decline in market value may have occurred?

24. What sources may the auditor use to obtain information about the current replacement cost of inventory items?

25. In making tests of clerical accuracy, why does the auditor concentrate on items of a high dollar value?

Questions on Application of Auditing Standards

26. A recent income statement for a well-known department store listed the following item among its expenses: "Increase in reserve for possible future decline in market value of inventories." Discuss.

27. A balance sheet shows two inventory reserves; one is deducted from inventory, the other is shown as a part of the stockholders' equity.

(*a*) Give the probable reason for the creation of each reserve.
(*b*) State the manner in which each reserve should be disposed of when no longer needed.
(*c*) Is the title "reserve" in accordance with good terminology usage in each instance? Explain.

28. The financial statements prepared by your client show the ending inventory carried at cost in the amount of $75,000. In the course of your examination you discover that the market value of the inventory at the balance sheet date was $65,000, and that by the end of the following month the value had declined to $50,000.

(*a*) As a result of the information you have gained, what adjusting entries would you recommend?
(*b*) What figures would be changed in the income statement as a result of your adjustments?

29. When the physical inventory is taken on October 31 in connection with a December 31 closing, the inventory cut-off must be tested at both dates. For each date, describe any cut-off errors which would produce an overstatement of net income.

30. C.O.D. merchandise is normally released to the carrier on one day, and the collections are not received until one or two days later. A company may record such sales upon release of the merchandise to the carrier and set up a C.O.D. receivable, or it may simply make a memo of goods released, and record the sale when the cash is received.

(*a*) What bearing, if any, would information as to a client's procedures on C.O.D. sales have on your examination of the entry and supporting details recording the physical inventory?
(*b*) Which of the two C.O.D. methods would you recommend that a client use?

31. (*a*) When a client is on a perpetual inventory basis, why should the auditor record in the permanent files the amount of the inventory shortage at the end of each year?

(*b*) Would a record solely of the amount be adequate? Explain.

32. Indicate two reasons why the auditor should examine the inventory records for the previous physical inventory when making a first audit of a client's records.

33. What accounts would be affected by the various types of inventory cut-off errors when the records are maintained on a periodic inventory basis? What accounts would be affected under a perpetual inventory plan?

34. This is your first audit of the Zjax Company. In reviewing the company's accounting procedures for purchases you learn that one person compares all receiving memos with vendors' invoices. Receiving memos for which no invoices have been received are placed in an unmatched receiving memo file. Invoices for which no receiving memos have been received are placed in an unmatched invoice file. Matched receiving memos and invoices are sent on to be recorded in the voucher register and paid. The client gave no consideration to these files in adjusting the book inventory to agree with the physical either last year or this year. Given the following information, what adjusting entries would you recommend?

	12/31/55	*12/31/56*
Unmatched receiving memos	$1,405.76	$ 760.85
Unmatched invoices	3,915.20	4,201.90

(All purchases are f.o.b. shipping point. The company follows the perpetual inventory method.)

35. In the department store case study it was pointed out that warehouse and reserve stocks were counted during business hours, but floor stocks were counted after the store was closed. What problem does this arrangement present to the auditor? What should he do about it?

36. You feel certain that the ending inventory reported to you by your client has been overstated unintentionally. Suggest as many types of errors as possible which might have given rise to an overstatement.

37. If the physical inventory is taken prior to the balance sheet date and the perpetual inventory records are used to account for changes between the count date and the balance sheet date, can both purchases and cost of sales be manipulated during this period to falsify net income? Explain. Is the situation different if the physical inventory is taken after the balance sheet date? Explain.

38. If both accounts receivable and inventory are subject to approximately the same degree of internal control, would the confirmation of accounts receivable and test counts of inventory quantities be likely to be equally extensive? Explain.

39. Should the auditor give an unqualified opinion on financial statements in which a large credit balance in the material price variance account has been taken to the income statement and inventories have been priced at standard cost? Explain.

40. Your client's physical inventory shows 134 gadgets on hand which have been priced at $15.45. The invoice for the latest purchase of gadgets covers the purchase of 40 at a price of $15.45. Inventory is costed on a first-in, first-out basis.

(*a*) Would you consider the above invoice to be adequate evidence that the inventory of gadgets had been correctly priced in a period of rising prices? Explain.

(*b*) In a period of falling prices, what information would be needed in addition to the latest purchase invoice to properly price the inventory at the lower of cost or market in accordance with the recommendations of the American Institute of Accountants?

41. In the audit of a client who is following the retail inventory method, the auditor should make a month-to-month comparison of departmental mark-on percentages and review some of the larger individual purchases for abnormal mark-on percentages. If the auditor is concerned about a possible overstatement of inventories, should he watch for low and declining mark-on percentages or high and rising percentages? Explain.

Problems

42. The cost-of-goods-sold section of the income statement prepared by your client, Biltwell Bird Cage Co., for the year ended December 31, appears as follows:

Inventory, January 1	$ 3,215.80
Purchases	21,172.15
Cost of goods available for sale	$24,387.95
Inventory, December 31	4,321.80
Cost of goods sold	$20,066.15

Although the books have been closed, your working paper trial balance is prepared showing all accounts with activity during the year. This is the first year your firm has made an examination. The January 1 and December 31 inventories appearing above were determined by physical count of the goods on hand on those dates, and no reconciling items were considered. All purchases are f.o.b. shipping point.

In the course of your examination of the inventory cut-off, both at the beginning and end of the year, you discover the following facts:

Beginning of the Year

1. Invoices totaling $364.15 were entered in the voucher register in January, but the goods were received during December.
2. December invoices totaling $796.19 were entered in the voucher register in December, but the goods were not received until January.

End of the Year

3. Sales of $564.20 (cost, $423.10) were made on account on December 31 and the goods delivered at that time, but all entries relating to the sales were made on January 2.
4. Invoices totaling $591.40 were entered in the voucher register in January, but the goods were received in December.
5. December invoices totaling $421.10 were entered in the voucher register in December, but the goods were not received until January.
6. Invoices totaling $1,215.40 were entered in the voucher register in January, and the goods were received in January, but the invoices were dated December.

Required (make corrections of prior years' income through the Retained Earnings Account):

1. The adjusting entries to be made in your work papers assuming the company is on a periodic inventory basis.
2. The adjusting entries to be made in your work papers assuming the company maintains the inventory control account on a perpetual basis. The book inventory figure at December 31 was $4,321.80, and the physical inventory agreed with that figure.
3. Corrected cost-of-goods-sold schedules under the assumptions in (1) and (2) above.

43. In connection with your examination of the inventory cut-off of the Boswell Co. as of December 31, you noted the items listed below. The company maintains a perpetual inventory control account in the general ledger, and this account has already been adjusted for the inventory shortage disclosed by the physical inventory (without giving consideration to the information shown below). What adjusting entries would you recommend, based on the information disclosed by your examination of the cut-off?

Sales cut-off

Goods Shipped	*Debit Receivables Credit Sales*		*Debit Cost of Sales Credit Inventory*	
12/29	1/2	$3,864	1/2	$2,904
12/31	12/31	4,251	1/2	3,197
1/2	12/31	2,992	12/31	2,041

Purchases cut-off (all goods purchased f.o.b. shipping point)

Invoice Date	*Receiving Memo Date*	*Entry in Voucher Register*	
12/30	1/3	12/31	$2,805
12/29	12/30	1/4	1,723
12/31	1/5	1/5	3,819

44. You are engaged in an audit of the records of the Amberly Company for the fiscal year ended October 31, and have observed the taking of the physical inventory of the company on that date.

All merchandise received up to and including October 30 has been included in the physical count. The following lists of invoices are for purchases of merchandise and are entered in the voucher register for the months of October and November, respectively:

Amount	*F.O.B.*	*Date of Invoice*	*Date Merchandise Received*
October			
$3,600	Destination	Oct. 20	Oct. 22
925	Shipping point	Oct. 20	Oct. 30
3,975	Shipping point	Oct. 26	Nov. 5
2,500	Destination	Nov. 3	Oct. 29
8,600	Shipping point	Oct. 26	Oct. 30
10,251	Destination	Oct. 21	Oct. 31
3,457	Destination	Oct. 28	Oct. 30
November			
1,000	Destination	Oct. 29	Nov. 5
3,120	Destination	Oct. 30	Oct. 31
5,350	Shipping point	Oct. 28	Oct. 30
4,500	Shipping point	Nov. 1	Oct. 30
6,040	Shipping point	Oct. 26	Nov. 5
5,000	Destination	Oct. 28	Nov. 4

No perpetual inventory records are kept and the physical inventory is to be used as a basis for the financial statements.

(*a*) What adjusting journal entries would you suggest in view of the facts adduced?

(*b*) What adjustment, if any, would you suggest to the physical inventory as originally taken? (A.I.A.)

45. A company sells a patented device for use on railway locomotives. The device consists of several main assemblies which, in turn, comprise numerous subassemblies composed of many different parts.

All materials entering into the device are purchased as finished parts, and the company's manufacturing operation is limited to their assembly. At the close of any day the inventory is in various stages of production from purchased parts to finished devices.

The different parts, subassemblies, and main assemblies have fixed production numbers, and are carefully segregated in bins plainly identified by those numbers. A perpetual card inventory record, correspondingly numbered, is maintained in units and value.

Several weeks before the balance sheet date you are requested by the company to suggest a plan for taking the physical inventory and to arrange to make whatever verification of the quantities you deem necessary in connection with your examination.

State the following:

(*a*) Plan you would suggest to the client.

(*b*) Auditing procedures you would follow for purpose of the examination. (A.I.A.)

46. Your client, The Pram Corporation, manufactures baby carriages as its only product. The corporation maintains perpetual inventory records in quantities and values and also takes a complete physical inventory each October 31st. You observed the physical inventory at October 31 and were satisfied with the procedures followed. From your test counts you are satisfied that the client's counts were substantially accurate.

There were differences between the client's count and the perpetual records for about 75 per cent of the items. Before adjusting the inventory records for the larger differences, of which there were about 25, the records were checked and the items were recounted. Typical examples of adjustments for the larger differences are

Description of Item	*Perpetual Record Before Adjustment*	*Perpetual Record After Adjustment*
Black paint (in gallons)	662	647
Cotter pins (in dozens)	2,260	2,160
Hub caps	8,592	8,708
Assembled wheels	6,901	6,883

The Pram Corporation made no further physical tests of inventories during the year. For its year-end closing at December 31, the corporation used inventory quantities shown by the perpetual inventory records.

Prepare in outline form an audit program setting out the essential procedures to be followed in your audit of inventories as of December 31. Do not include procedures unless you believe them to be essential under the conditions as stated. (A.I.A.)

47. You are making an examination of the statements of the Modern Department Store at December 31. The following figures are presented to you at the time you commence your examination:

Book Inventory January 1:	
Cost	$110,406.19
Selling	154,305.91
Transactions for the Year:	
Purchases	
Cost	421,401.40
Selling	604,367.18
Sales	586,565.94
Markups (selling)	1,052.03
Markdowns (selling)	7,831.20
Physical inventory December 31 (selling)	162,325.87

In the course of your examination, you discover the following:

1. Markdowns totaling $1,256.00 were shown on price tags, but not recorded on the books.
2. Merchandise with a sales value of $786.00 was out of the store on demonstration at the inventory date, and not included in the physical inventory.
3. The purchases figure includes invoices for merchandise costing $3,624.98, but the merchandise had not been received. The invoices were dated December.
4. Merchandise with a sales value of $2,152.00 was counted in the inventory, but the invoices had not been received or recorded at December 31.
5. Invoices totaling $10,325.72 were on hand for merchandise shipped to your client in December, but the invoices were not recorded and the merchandise had not been received at December 31.
6. Merchandise totaling $2,376.52 was on hand and included in the inventory, but had already been sold and the sale was recorded in December.
7. All electric light bulbs are stocked on a consignment basis. The inventory of light bulbs totaled $1,271.90, and was included in the physical inventory.

Required:

1. Computations to arrive at the book inventory figure before considering items 1 to 7 above.
2. The inventory figure which should appear in your client's balance sheet, after considering items 1 to 7. (All goods are purchased f.o.b. shipping point.)
3. The income statement for the store through net margin on sales, in form ready for typing.
4. A statement as to how the auditor would likely have uncovered the information in items 1 to 7 above.

48. The accountant for the Handy Department Store prepared all records relating to inventories, which were maintained under the retail method. Purchases are recorded in the voucher register net of cash discount, but in preparing the statistical record which shows all purchases at cost and selling price, the accountant recorded the purchases at gross invoice cost. (The percentage developed through this record is used to prepare the monthly cost of sales entry, and at the year end to reduce the inventory, which is taken at selling price, to cost.)

As a result of this error on the statistical record, gross margin for the year was 34 per cent, whereas had the record been properly prepared the margin would have been 35 per cent.

Give the adjusting entry you would show in your audit work papers, assuming that sales were $492,339.28, and the ending inventory at selling price was $81,473.92. The book inventory has already been adjusted to agree with the physical inventory.

49. The Parsons Department Store on January 1 changed from recording purchases at gross and showing purchase discount as income to recording purchases net of the discount and showing any discounts lost as expense. This change will of course affect comparability of statements for last year and this year, and may require qualification of the auditor's opinion. From the following information prepare a schedule showing the net effect of the change in method on this year's income before taxes.

Purchases, as recorded	$490,000
Discount available on above purchases	10,000
Discount taken on above purchases to December 31	8,500
Discount taken on accounts payable as of January 1	700
Accounts payable January 1	40,000
December 31	49,000
Inventory January 1	80,000
December 31	88,200

50. The Martin Company records all purchases net of any discounts and treats any discounts lost as an expense. The inventory was priced by a new employee this year and he mistakenly priced all items at gross invoice cost. A recalculation of the inventory showed that the original inventory figures had been overstated $2,862.41. What adjusting entry would you make in your working papers if the client was on (*a*) a periodic inventory basis, and (*b*) a perpetual inventory basis and the control account had already been adjusted to agree with the physical inventory?

51. Determine the proper carrying value of the following inventory if priced in accordance with the recommendations of the American Institute of Accountants on inventory pricing.

Item	*Cost*	*Replacement Cost*	*Net Realizable Value*	*Net Realizable Value less Normal Profit*
A	$1.75	$1.80	$1.95	$1.78
B	.68	.65	.70	.66
C	.29	.27	.35	.30
D	.83	.83	.81	.76
E	.79	.74	.79	.72
F	1.19	1.15	1.12	1.05

52. The following figures are from work papers covering a December 31 examination. The inventory is priced on a first-in, first-out basis.

Per Inventory				*Per Invoices Examined*		
Item	*Quantity*	*Price*	*Total*	*Invoice Date*	*Quantity*	*Price*
A	150	$1.40	$150.00	12/15	300	$1.50
B	2,000	.28	560.00	12/20	500	.28
C	104	.75	78.00	5/17	300	.75
D	2,980	.25	745.00	2/5	3,000	.25

State whether you would question the inventory price used by the client, the auditor's verification, or both, under the following circumstances (give reasons):

(*a*) Material prices have been rising steadily.

(*b*) Material prices have been declining but sales prices have remained steady.

(*c*) Material prices and sales prices have been declining.

53. The complete audit program for the verification of the raw materials inventory of the Madison Manufacturing Co. is given below. In addition, certain data are given covering company figures and audit work which has already been completed.

Using the information given, you are to prepare the final work sheet covering the verification of inventory, showing the results of your examination of inventory items not yet verified, and including the totals carried forward from work sheets previously completed. If no further information is given concerning any point in the audit program, assume the work was completed and no exceptions were found.

Also, prepare a summary showing the extent and results of all inventory work which was performed.

1. Observe taking of physical inventory by client on December 31, noting that all procedures covered by client's printed instructions are followed.
2. Make independent counts of about 2 per cent of the inventory items, and record in our work papers for tracing to the final inventory sheets. Select items of substantial value.
3. Select 25 material requisitions and 25 purchase transactions from the last 3 days of current period and the first 3 days of following period, for examination of cut-off on raw materials.
4. Verify pricing, which is on an average cost basis, on all items counted by us, on all other items with a value of $500 or more, and in addition select two other items from each page of the client's inventory. Verify by examining average cost shown by perpetual inventory records, and noting cost per unit on most recent purchase. For every third item selected for price test, examine the vendor's invoice in support of the most recent purchase. If most recent purchase is below previous average cost, investigate reason for difference and make note in our papers if it appears the item should be priced at market rather than cost.
5. Discuss price situation generally with purchasing manager as to raw materials and with sales manager as to finished product, to ascertain whether any general write-down of inventory costs may be necessary.
6. Careful watch should be maintained for obsolete or unusable parts.
7. Check clerical accuracy by verifying extensions and footings of every third inventory sheet. Scan other sheets for extension or footing errors.
8. Prepare entry to adjust book inventory to agree with physical inventory. Ignore errors disclosed by our examination unless they are material.

Information concerning work done or to be done:

Items selected for pricing test from last three pages of the inventory—

Part No.	*Quantity*	*Cost*	*Total*
2204	162	$4.39	$ 711.18
2210	1,864	.13	242.32
2213a	415	1.19	493.85
2213b	764	1.13	863.32
2220	13 doz.	2.34	30.42
2234	265	3.82	1,012.30
2241	549	.98	538.02
2246	175	2.14	374.50
2249	318	1.83	581.94
2264	65	.39	25.35
2277	204	.81	165.24

(Above part numbers which were counted during physical inventory—2213b, 2234.)

Average costs on above items as shown by perpetual inventory records (costs are per unit of one unless otherwise indicated)—

2204	$4.39	2241	$ .98
2210	.13	2246	2.14
2213a	1.19	2249	1.83
2213b	1.13	2264	.39
2220	2.34	2277	.81
2234	3.82		

Data from vendors' invoices covering items to be traced thereto—

Part No.	*Voucher No.*	*Date*	*Quantity*	*Price*
2213a	14891	12/13	300	$1.19
2234	14906	12/15	500	3.84
2249	12246	9/17	1,000 (a)	1.80

(*a*) These items were bought at a special close-out price—regular price from new supplier will be $1.95.

Totals of worksheets covering remainder of the inventory:

	No. of Items	*Dollar Value*
Items selected for price test	118	$41,964.92
Items tested to vendors' invoices	39	14,251.83
Items test counted included in above figures	33	18,249.51
Differences disclosed—		
Inventory overstated		1,321.15
Inventory understated		926.57

Other data—

Raw materials inventory	*Last Year*	*This Year*
Per books	$67,964.84	$87,465.19
Per physical		
Dollar value	60,364.29	78,216.45
No. of items	1,529	1,603
Raw materials used	$694,205.46	$851,319.82

Results of test of clerical accuracy	
Total dollar value of pages verified	$24,816.92
Errors disclosed by above test	
Inventory overstated	433.41
Inventory understated	926.53
Errors disclosed by scanning	
Inventory overstated	521.19

9 · Securities and Other Investments

The principal concern of this chapter is a discussion of the auditor's objectives in the examination of stocks and bonds which are held by the client for either short-term or long-term investment purposes. Supplementary comments are given concerning other types of investments to the extent that the problems and procedures involved differ from those for stocks and bonds. Other forms of investments discussed include mortgages, loans or advances to subsidiary or affiliated companies, and life insurance.

INTERNAL CONTROL

For most businesses, buying, selling, and holding securities tend to be activities which are merely incidental to their fundamental operations. As a result, the number of security transactions is usually very small, and company executives are likely to be so preoccupied with normal operating problems that little consideration is devoted to any investments which may be held. That deficiencies in internal control are likely to exist over such investments is therefore practically a foregone conclusion. A moment's consideration, however, should show the dangers inherent in poor internal control. Investments in stocks and bonds can readily be converted into cash, and the regular income from the investments can easily be appropriated if the income is not properly controlled. Yet adequate protection against these contingencies in the form of the simple control measures discussed below shows how readily risks attendant with the ownership of securities can be minimized.

Authorization of Purchases and Sales

Although the treasurer is properly responsible for the liquid assets of a company, his judgment in matters of buying and selling securities should be augmented by that of other company officials. Thus, although the treasurer may recommend that certain purchases or sales be made, approval of those recommendations by the board of directors serves as a valuable check on the judgment of the treasurer. Such approval also has the advantage of producing clear-cut authorization of the treasurer's activities in the form of the record of the action of the board of directors in the minutes which must be kept of its meetings.

If securities transactions are too frequent to justify consideration by the board of directors, or if the board meets too infrequently to handle such matters effectively, the authorization responsibility can be lodged with an investment committee composed of officers, directors, or both. The committee should keep a formal record of its actions to aid in the subsequent audit of security transactions, and if desired this record may be submitted to the board of directors for its approval.

Custody

The responsibility delegated to the treasurer for the liquid assets of a concern ordinarily includes custody of securities owned. The substantial amounts involved, however, suggest the advantage of placing such custody under a plan whereby the treasurer alone cannot obtain access to the securities. The desired dual control over the securities can be obtained by keeping them in a vault which requires two keys or two dial combinations to be opened, the second key or combination being held by some executive other than the treasurer. Similar control, plus some additional advantages, can be obtained by keeping the securities in a safe deposit box and specifying a second executive who must also sign an entrance slip before access may be had to the box. Another arrangement is to place the securities in safekeeping with a recognized depositary, the securities to be released by the depositary only on presentation of an authorization signed by the treasurer and a second executive who has been specified. Further protection is obtained if the depositary is authorized to collect all dividends and interest and deposit them directly to the account of the company.

Accounting Records

Records concerning investments and the resulting income are ordinarily handled by the accounting department under the supervision of the controller. Segregation of this responsibility and that of custody of the securities is of utmost importance since independent accountability is thus established over the securities and the income which they produce. Further control over security transactions is possible if the accounting department ascertains that each transaction has been properly authorized.

Accounting control over income from securities is essential if assurance is desired that all income has been deposited in company bank accounts. In the case of investments in bonds, many concerns make monthly standard journal entries accruing all interest earned and amortizing any premium or discount. Such entries facilitate the preparation of monthly statements, and by recording the entries in the ledger rather than as worksheet adjustments, an account for accrued interest receivable is established. This account then shows the amount of interest income the treasurer must account for, and results in a far superior situation than when the treasurer is solely responsible for reporting to the accounting department the amount of interest income he has received and deposited.

Dividends from corporate stocks are more difficult to control. No accrual entry for the dividends can be made since even though a company may have a definite program for payment of dividends, conditions may result in dividend rates being raised or lowered, and regular dividends may be omitted or extra dividends declared. Perhaps the best means of securing adequate accountability over dividends when only a few stocks are held is to place the stocks in safekeeping. The usually superior internal control of the safekeeping agent then replaces that of the owning company, and if the agent reports all dividends received directly to the accounting department, independent accountability is fully operative. For businesses which do not keep stocks in safekeeping, a representative of the accounting department should periodically compare dividends received with a published record of all dividends which have been declared and paid.

In instances where several securities are held and transactions are frequent, a subsidiary ledger record for each security should be maintained. As in the illustration on page 287, such a record usually provides for the showing of complete identifying information for each security, a record of each purchase and sale transaction, and a record of all income received.

RECORD OF STOCKS AND BONDS

NAME OF SECURITY

PAR VALUE OR DENOMINATION $ | DATE OF ISSUE | DATE OF MATURITY

DIVIDENDS OR INTEREST RATE | PAYABLE

STOCK DIVIDENDS | DIVIDENDS CUMULATIVE?

TAX STATUS | RIGHTS

CALLABLE AT $ | WHEN CALLABLE | CONVERSION PRIVILEGES

REGISTERED IN NAME OF | WHERE LOCATED

OTHER DATA

DATE	BOUGHT FROM OR SOLD TO (OR NAME OF BROKER)	MEMO	CERTIFICATE OR BOND NO	PURCHASES		SALES				BALANCE		
				QUAN	AMOUNT	QUAN	COST	SOLD FOR	PROFIT OR LOSS	QUAN	AVG COST PRICE	AMOUNT

(FRONT)

RECORD OF DIVIDENDS OR INTEREST

NAME OF SECURITY

DATE	MEMO	AMOUNT	DATE	MEMO	AMOUNT	DATE	MEMO	AMOUNT	DATE	MEMO	AMOUNT

(BACK)

Courtesy Charles R. Hadley Company

Bonding

As in the case of employees or officers handling cash, those handling securities or the income from the securities should be bonded. The large risks ordinarily involved when securities are held in the owner's custody make it essential that all persons having access to the securities be adequately bonded. The cost of such fidelity insurance can be avoided, of course, if the securities are placed in safekeeping.

Internal Reports

At least once a year, and in some cases as often as once a month, a report should be prepared listing all securities held and showing their cost and market value. Such a report is vital in analyzing and appraising a company's investment position. Supplementing this report, an analysis may be given of all security transactions occurring since the date of the previous report. A schedule showing the return on each investment and the over-all return on all investments will also prove highly useful in most instances.

Internal Auditing

One of the most important services which the internal auditor can perform when investments are held is to make occasional surprise counts of the investments. Those securities which are not on hand should be confirmed. Only in this way can the independent records establishing control over the custodian of the securities be made fully effective. Without such counts there is no assurance that the securities are on hand and have not been converted for personal gain. If there is no internal auditor, some employee or officer outside of the treasurer's department should count the securities and balance the count against the ledger records at least once a year.

Other important procedures applied by the internal auditor in making an examination of investments would include a review of purchases and sales since the previous examination. Supporting data, such as brokers' advices, should be examined in support of recorded costs for purchases and in support of the proceeds of sales. Prices may also be verified against market quotations, and the authorization for each purchase and sale should be inspected. Particular note should be made that any gains or losses on sales have been properly recorded.

The internal auditor should also verify the income from investments. All dividends and interest due should have been recorded,

and the cash should have been received shortly after the dividend or interest payment date. Amortization of premium or discount should be verified, as should the accrual of interest at the end of the year.

STANDARDS OF STATEMENT PRESENTATION

Investments involve most of the problems of statement presentation mentioned in the previous chapters pertaining to other types of assets. One problem which seldom affects most other assets, however, is invariably present when investments appear among a client's assets: should the investments be classed with current assets or must they be included under a noncurrent classification?

Classification as Current or Noncurrent

Any investment assets which are not readily marketable should ordinarily be excluded from the current section of the balance sheet. They may be shown under a separate "Investments" caption or they may be classed under "Other Assets," depending on the materiality of the amounts involved. Investments which are not readily marketable would include mortgage notes, other long-term notes, securities of close-held corporations, advances to affiliated companies, and the cash surrender value of life insurance policies.

Occasionally investments which are readily marketable must nevertheless be classified as noncurrent. Any investments which are held for nonworking capital purposes would fall in this category. Examples would include investments in pension funds, sinking funds, or plant expansion funds, as well as investments in subsidiary or affiliated companies, loans or advances to such companies, and investments held for long-term production of income. For instance, E. I. du Pont de Nemours & Company owns almost 25 per cent of the outstanding common stock of General Motors Corporation. A ready market exists for General Motors stock, although perhaps not in such a large block, but du Pont carries the stock under a separate investment caption since income is an important consideration in holding the stock, and there is apparently no intention of disposing of the stock.

The preceding comments should suggest that only readily marketable securities being held for working capital purposes may properly be classified as current assets. Obviously included in this category would be the temporary investment in marketable securities of idle funds during the slack period of a seasonal business. In some cases,

however, even securities which have been held for several years may be shown as current assets if intentions are to use the securities for working capital purposes whenever the need arises. Montgomery Ward and Company holds substantial amounts of United States government securities in anticipation of possible needs during the post-World War II depression which the company has been expecting. These securities properly have been classified as current assets.

Financial institutions such as banks and insurance companies ordinarily do not have a problem as to the proper classification of investments. The major portion of their resources is usually invested in such assets, and all of the investments are considered to be security for the claims of depositors or policyholders. Classifying the investments by type is much more meaningful than any attempt to classify them as current or noncurrent, and such classification takes the place of the customary classifications found on balance sheets of industrial and trading concerns.

Indication of Basis of Valuation

Since investments may be valued in any of several acceptable ways, explicit information should be given as to how securities have been valued in each instance. For marketable securities carried as a current asset the most common method of valuation is cost, but preferably the market value of the securities should be stated parenthetically, regardless of whether market is above or below cost. Marketable securities may also be properly carried at the lower of cost or market, in which case the higher of the two figures should be given parenthetically.

Long-term investments shown under a noncurrent classification are normally valued at cost. Market value of the securities may be stated parenthetically if the client so desires, but the information is not considered as essential as in the case of securities classified as current assets. If market value of the long-term investments has declined materially as a result of the unsatisfactory financial position of the issuing company, the loss should be recognized by reducing the carrying value of the securities. No write-down should be made, however, to reflect temporary declines associated with price fluctuations of the security market as a whole.

Investments in the stock of nonconsolidated subsidiary or affiliated companies may be carried at the book value of the equity in the related company. The preferable method of accomplishing this objective is to record dividends received as income and then adjust the investment account for changes in the equity in the related company

through retained earnings or a special reserve account. A less satisfactory method is to record the share of the related company's earnings as income. Dividends received are then treated as credits to the investment account.

Since each of the methods described above for valuing investments may be used if desired, the auditor's problem is not primarily one of inducing the client to follow an acceptable method of valuation. The main consideration is to determine that the client has clearly indicated in the balance sheet the basis of valuation being followed. The variety of acceptable methods makes such information essential to the reader or analyst who is attempting to interpret the company's financial position or results of operation. Also, of course, the auditor must carefully comment in his report on any change between years in the method of valuing investments, unless such change will not materially distort the comparability of the client's financial statements.

Other Balance Sheet Considerations

The following points must also be considered in meeting accepted standards of statement presentation:

1. If investments are a significant portion of the total assets, as in the case of financial institutions, information should be given showing the major types of investments, listed in the order of their liquidity. The following classifications are frequently used:

United States government securities
  Short-term notes, bills, and certificates
  Bonds
State and municipal bonds
Corporate bonds
Long-term notes
Mortgages
Advances to affiliates or subsidiaries
Preferred Stocks
Common Stocks

2. Full disclosure must be made if any securities have been pledged as collateral or are otherwise subject to lien.

3. Investments in affiliated or subsidiary companies should be listed separately from other investments and the nature of the relationship to such companies should be stated.

4. A company's own bonds or stocks held in the treasury or in special funds are preferably shown as offsets to the total amount of bonds or stocks issued. If the client wishes to follow the less desirable

alternative of showing such securities as assets, full disclosure should be made of the fact that the company's own securities are involved. Similarly, on the equity side of the balance sheet, reference should be made concerning any of the issued securities which are being carried as assets. Securities held in special funds or acquired for resale under stock option plans are sometimes suggested as instances warranting an asset classification.

Income Statement Considerations

The ownerhip of securities entails certain problems of presentation of the resulting income in the income statement. Since the auditor customarily approaches both the investment and the income as one complete phase of his examination, the proper presentation of investment income in the statement of operations is discussed at this point.

1. Unless investments are a principal source of income, as in the case of financial institutions, the income should be classified as "Other Income."
2. If significant amounts are involved, interest income and dividends received should be displayed separately since the lesser stability of income from dividends may be an important factor in making a projection of estimated future earnings.
3. Gains or losses resulting from the disposition of securities should be shown apart from the interest and dividends received, since such gains or losses may be nonrecurring. In situations where such nonrecurring items would materially alter the net income reported, they are preferably taken directly to retained earnings.

VERIFICATION OF STATEMENT AMOUNT

The auditor's objectives pertaining to the verification of the amount at which investments are to be carried in the balance sheet are three in number. The fourth objective given below pertains to the related problem of establishing the amount of income from the investments. The objectives are

1. To substantiate the balance sheet figure for investments through supporting internal records.
2. To establish the existence and ownership of the investments.
3. To determine that the investments have been properly valued.
4. To ascertain whether all income from the investments has been accounted for.

The audit procedures customarily applied in attaining these objectives are discussed in the following pages.

Substantiation of the Balance Sheet Amount Through Supporting Internal Records

The audit procedures employed in substantiating the balance sheet figure for investments through reference to internal records vary, depending on the number of investments held and the internal control over the investments. In general, however, the procedures are similar to the procedures discussed under this heading in preceding chapters.

Trial Balance. Financial organizations and other concerns holding a large number of different securities will invariably maintain a subsidiary ledger record for each investment held. The auditor should prepare and retain in his working papers a trial balance of the balances in the subsidiary ledger as evidence of the agreement of the detailed records with the controlling account and the balance sheet figure. For each security, in addition to the carrying value of the security, the trial balance should show the name of the issuing company, the title or class of the particular security held (for example, First and Refunding Mortgage Bonds, Class A Preferred Stock, and so on), and the number of shares or the face amount which is held. Such information is essential to enable the auditor to tie in the trial balance with his record of the actual certificates counted in connection with his verification of the existence of the securities. In some cases count of the securities on hand and confirmation of those not on hand will be made directly against the trial balance record. Tick marks can be used to show that the auditor has examined or received confirmations covering each security.

The typical commercial or manufacturing concern seldom has any funds invested in securities. In those few exceptional cases where securities are held they are likely to be few in number, and as a consequence detailed subsidiary ledger records will not be necessary. In such instances a work sheet similar to schedule N is likely to take the place of the trial balance which is prepared when a subidiary ledger is maintained. Such a schedule (showing the carrying value of each security owned at the beginning of the audit period, all transactions occurring during the period, and the carrying value of each security at the end of the audit period) not only serves as a form of trial balance, but as the working paper record of the auditor's verification work in connection with the attainment of the remaining objectives of his examination of investments. The schedule is

prepared by taking figures at the beginning of the period from the working papers of the previous year, or from the accounting records or the client's analysis of the investments account, if the auditor is making his first audit for the client. All transactions entered in the general ledger investments account during the year are then analyzed and recorded in the work sheet on the appropriate lines for the securities affected. The beginning balance for each security, plus or minus any transactions during the year, is then carried across to the column for balances at the close of the period, and the total of this column should then be agreed with the closing balance of the general ledger investments account.

Cut-off of Purchases and Sales. To assure correct and full disclosure of the facts as they actually exist at the balance sheet date, the auditor should satisfy himself that a proper cut-off was observed in recording all transactions occurring shortly before or shortly after the balance sheet date. In the case of purchases of securities through a broker, ordinarily payment does not have to be made until several days after the purchase is consummated by the broker. The actual delivery of the stock or bond certificate to the client may not occur until several weeks later as a result of the time required to record the name of the new owner on the records of the transfer agent and to issue a new certificate in the client's name. Thus it is quite possible that a purchase may have been made shortly before the balance sheet date and yet no record would appear until after that date. By examining the supporting data for such purchases, particularly the broker's advice of purchase, the auditor can ascertain exactly when the purchase occurred. If the purchase was consummated before the close of the year and material amounts were involved, adjustment should be made to show the investment as an asset, and the resulting liability for the purchase cost should also be shown.

A similar situation may arise in the case of securities sold shortly before the balance sheet date. The cash proceeds will ordinarily not be received until several days after the sale date, and the actual certificates sold do not have to be delivered to the broker until three days after the sale. Thus it is quite possible that a sale may have occurred before the balance sheet date in spite of many indications to the contrary. Again, review of the facts and evidence related to a sale recorded shortly after the balance sheet date should reveal the true situation. If the sale was actually made prior to the end of the year, the investment account should be reduced and a nontrade receivable shown for the amount of the proceeds. The realization of either a gain or loss on the disposition may be an important factor

in determining whether failure to record the transaction in the proper period will materially affect the financial statements.

Verification of Entries in the Investment Account. As in the case of the examination of receivables, cash, and inventories, the auditor should satisfy himself that entries to the general ledger control account for investments reflect bona fide transactions and that the postings originated from the regular books of original entry. In the typical commercial audit involving relatively few investment transactions, each posting to the investment account should be traced to the source record and recorded in the auditor's working papers analyzing the changes in the various investments, as shown in schedule N. Further verification of these entries will then be made from the working paper schedule. This verification work is discussed under the objective which pertains to the valuation of the investments.

In the examination of financial organizations having large numbers of securities transactions made under good internal control, entries to the investment control accounts should be traced to source records for one or two months to establish the validity of the entries in the controlling accounts. As a further test of the client's records, the individual transactions listed in the source records should be traced to the postings to the individual securities ledger sheets. These postings should be tick-marked, and on completion of this work the ledger should be reviewed to ascertain whether all entries dated in the month chosen for examination have been tick-marked. If entries to the securities ledger are to be random tested rather than verified in their entirety for a stated period, then some tests should be made working from entries in the securities ledger and tracing the entries to the source records to ascertain that they appear in those records. Only in this manner can the auditor detect fictitious entries in the securities ledger.

Establishment of the Existence and Ownership of the Recorded Investments

Investments which are in the client's possession should be examined in support of the ledger records of those investments. Direct confirmation should be obtained covering all investments not on hand, and as is later pointed out, notes receivable should be confirmed with the individuals or firms who have issued the notes.

Physical Examination. One of the most important procedures in establishing the existence of the client's investment assets is the physical inspection of the certificates or documents evidencing those investments. Since most documents of this type are easily negotiated

or pledged as collateral for borrowed funds, the safeguards pertaining to the count of liquid assets in the chapters on receivables and cash apply with equal force to the count of investments. In other words, all liquid assets must be counted simultaneously or kept under control until the counting has been completed, in order to preclude any attempt to conceal a shortage by substitution of an asset already counted. Also, it is desirable that the auditor obtain a signed statement that all the investments counted were returned to their custodian at the completion of the count made in his presence.

If the count cannot be made on the balance sheet date, additional audit time will be consumed. Cash in bank will have to be reconciled at both the balance sheet date and at the count date. Furthermore, all investment transactions occurring between the count date and the balance sheet date will have to be verified to establish the amount of investments at the balance sheet date. These problems can be eliminated if the client keeps the investment certificates in a public safe deposit vault. Operators of such vaults maintain records of all entries to the boxes stored in the vault. Thus if the auditor counts the investment certificates after the balance sheet date, the same certificates can be presumed to have been present at the balance sheet date if the vault operator certifies that his records show that no access was given to the client's deposit box between the balance sheet date and the time of the auditor's count. If the auditor plans to delay the count of investments and proceed on this basis, the client should be cautioned that the loss of control will entail additional audit work if any one obtains access to the box before the auditor makes his count.

The count of securities held by a large financial institution may extend over several days. In such instances all securities should be placed under the auditor's seal and the auditor should maintain a record of all securities added or withdrawn during the period the securities are under his control.

Making the Count. At the beginning of the investment count both the client and the auditor should be in full accord as to what is to be counted. Subsequent disclosure that the client's representative did not present all the securities in his custody to the auditor may necessitate a complete recount of all liquid assets at a later date. If the auditor is not sufficiently informed at the time of making the count to recognize the omission and ask for the additional securities, part of the blame for the additional work is his.

If the auditor is not making a surprise count of investments he will usually find it advantageous to prepare, before beginning the count, a list of all securities held. The listing may well be made on

the regular worksheet for investments, as was done in the case of schedule N at the close of the chapter. A tick mark is then used to show that each security has been counted. Preparing the list from the records in advance of the count not only speeds the making of the actual count but gives immediate notice if anything has been omitted from the count.

In counting securities the auditor should note carefully that the description of each certificate he examines agrees exactly with the description in the records of the company. Many companies have several outstanding issues of stocks or bonds which are similar in appearance and description. If the records show 100 shares of cumulative 4½ per cent preferred stock, the auditor must be sure that he has examined a certificate of that description and not one representing 100 shares of the same company's $5 noncumulative participating preferred. Similarly, close attention must be given to the company name on the certificate. The securities of ABC Co. may have vastly different value from those of ABC, Inc. Some documents may be difficult to identify. A promissory note may be incorporated with a complicated collateral agreement that is ten pages in length. Similar to the note agreement in appearance, and kept in the same place for safekeeping, may be a warranty agreement or a perpetual care agreement for a cemetery lot. Accurate and careful description of each item counted is especially important in the case of a surprise count, when the record made by the auditor during the count must later be checked out against the client's record.

If coupon bonds are encountered, all unmatured coupons should be attached to the bonds. The coupons are payable to bearer and are fully negotiable, hence missing coupons will cause a bond to diminish in value. On the other hand, matured coupons which have not been clipped suggest that interest payments are in arrears and that the bond may not be paid in full at maturity.

Ownership. If the auditor is to be fully satisfied that all investments owned by the client are fully accounted for and have been submitted to him for examination, he must attempt to ascertain the true owner of all securities presented to him for count. Unless care is exercised on this point the auditor may be misled into improperly accepting the securities as being the client's when in fact they may be securities which have been pledged by a customer as collateral, borrowed from other portfolios which the client holds as trustee, or borrowed from an outside source. The possibility of concealing a shortage by substituting other securities held by the client should show the importance of determining what securities are held by the client in a bailment capacity and fully accounting for those securities

as well as the securities owned by the client. Information on the securities held by the client but owned by others should be established independently by requesting information on collateral pledged when notes or other receivables likely to be secured are confirmed in connection with the verification of the receivables.

Of considerable importance in the determination of ownership of a security being examined is the name of the registered owner shown on the certificate. The name should, of course, be that of the client. Possibly the only permissible exception is where a company carries its securities in the name of an individual who acts as nominee in order to avoid revealing the identity of the company as owner. The auditor should also note whether the certificates examined have been endorsed. Endorsement increases the possibility for misuse of the securities. The absence of any endorsement is fairly conclusive evidence that the securities have not been temporarily converted to some individual's use in the past. These comments do not apply, of course, to bearer bonds.

The most positive identification which can be made of the certificate being examined is its serial number. Serial numbers can be obtained from the client's records, from the working papers of the previous year in the case of a repeat audit, or from copies of brokers' delivery advices. These numbers should then be compared with the numbers on the certificates counted by the auditor. By making effective use of these numbers the auditor can protect himself against the substitution of borrowed securities to conceal a shortage, and he can detect a temporary conversion of the securities accomplished by a sale of the securities and repurchase before the time of the auditor's count.

Serial numbers are seldom tendered such consideration, however, in the audit of financial institutions holding substantial amounts of investments. In such cases internal control is usually adequate to preclude any question being raised about the certificates being examined.

Confirmation. As a general rule stocks or bonds which have been counted need not be confirmed. This is particularly true of securities traded on a recognized exchange. The number of parties and the precautions involved in the transfer of security certificates in such cases presents substantial assurance to the auditor that the certificates he is examining are valid. Even more important, however, in assuring the authenticity and validity of such a certificate is the physical makeup of the certificate itself. The color engraving and paper used are specialties of a limited number of concerns, and these concerns are careful to accept only work which is properly authorized. The

slightest indication that any fraud might be involved in an order for such engraving work would bring immediate rejection of the order and possible police investigation.

The effect of such precautions in the engraving and printing of security certificates and the manner in which securities are purchased and sold afford the auditor reasonable justification for accepting the certificates on their face, much as government currency is accepted. When these protective features are wholly or partially absent, then, of course, confirmation must be obtained from the issuer to compensate. This would be true in the case of unlisted stocks or bonds issued by unknown companies and purchased from the issuer or from another party without the services of a regular security dealer being involved. For the same reason, and also because the documents are less formal, confirmation would be required on any notes which are held. Such confirmation is doubly important since it may reveal payments made which have not been recorded by the client's employees, possibly as the result of a misappropriation.

Of course, any investment document which is not available for count at the count date must be confirmed with the holder at that date to establish the existence of the investment. Investigation as to the reason the note or certificate is held by someone else may lead to disclosure that it has been pledged as collateral, a situation which has important balance sheet connotations, as noted previously. Usually, however, the evidence of the investment will be absent because the certificates are being held in safekeeping or under a trust agreement, or because they are being transferred to the new owner after purchase, or because they have been sent out for collection. Confirmation of securities held by a trustee under a sinking fund or pension trust agreement is especially important. The auditor should request sufficient information to enable him to ascertain that the trustee is operating in accordance with the terms of the trust agreement, and the list of securities held may reveal that some of the client's own securities are in the fund.

If the certificates prove to be in transit at the count date, the auditor should note carefully the transit period involved after the certificates arrive. An abnormally long period might indicate that the certificates had actually been received earlier, and were utilized for some fraudulent purpose at the count date. If important securities are in transit to the client at the count date, the auditor may wish to control the client's incoming mail until the certificates arrive. In this manner the auditor can determine the exact date of arrival and can note the postmarks and the sender's return address as further verification of the true facts.

Determination That Investments Have Been Properly Valued

Although other factors may enter into the final determination of the valuation to be used in the balance sheet for investments, verification of the original cost of the investments will invariably be the starting place for such verification.

Cost. Verification of the cost of investments may well follow the chronological sequence of events at the time the investments were acquired. When the client's procedures call for initial authorization of the purchase to be made by the board of directors or a special committee on investments, examination of the record of such authorization in the official minutes of the group may well be the auditor's first step. When investments have been acquired through a brokerage house, the examination of the broker's advices will ordinarily be the next step. The advice is essentially an invoice, and will show the date of the transaction, the description of the securities bought, the number of shares or the face value of the securities, the price, the total purchase cost, and the commission, tax, and other items involved in arriving at the total amount due. When large and frequent purchases are made, the auditor may test purchase price figures against published market quotations for the day as further verification of the unit cost. The paid check resulting from the client's payment for the purchase is also very useful evidence of the cost. Ordinarily no reference to the paid check should be necessary when the broker's advice is available, but if the investment is some form of mortgage note or unsecured note, the paid check may be the only satisfactory evidence available.

When sales of investments occur, the auditor must be careful to note that the investment account was credited with the cost of the securities sold, and not with the proceeds of the sale. It is a natural mistake for the bookkeeper who only rarely handles such transactions to credit the full proceeds to the investment account, ignoring any accrued interest received and any gain or loss on the sale.

If a partial sale of investments acquired over a period of time occurs, some method of determining the cost of the securities sold must be consistently followed. Ordinarily, one of the two methods acceptable for tax purposes will be used—specific identification of the cost of the certificates delivered, or first-in, first-out. The proceeds of the sale used in determining the gain or loss should ordinarily be the net proceeds after deducting the expenses of the sale. Sales of investments and the proceeds from such sales should be verified in much the same manner as purchases. Evidence that the proper amount of

cash was actually received will be in the form of an entry on a deposit ticket or on the bank statement. Since there will be no special identifying information for such entries, identification must be made on the basis of the dollar amount involved.

Working Papers. Schedule N at the close of the chapter illustrates the manner in which the auditor customarily summarizes changes in the client's investment account and indicates the verification work which he has performed. The beginning balance for each security, both face value (or number of shares) and cost, should be compared with the closing balance shown in the working papers for the preceding year. Purchases and sales should be recorded on the schedule from an analysis of the general ledger account, or balanced with transactions in the general ledger account if the information is taken from the detailed securities ledger. Verification of the recorded purchases and sales should be made as suggested above, and tick marks with an explanatory legend should be used to show what has been done. The columns for net proceeds and gain or loss on sale are merely memorandum columns. The cost of securities sold recorded in the sales column, plus or minus the figure in the memo column for gain or loss, should equal the net proceeds of the sale. The total of the memo column for gain or loss should agree with and be cross-referenced to the trial balance figure for net gain or loss arising from sales of securities.

The cost amounts in the column for balances at the close of the year should be totaled and cross-referenced to the trial balance figure for investments. The description and the face amount or number of shares of each security on hand at the end of the year should be verified by the count of securities, as mentioned earlier.

In the case of long-term bonds which are to be held for more than a year, provision must be made in the working papers for a record of premium or discount amortized during the year. These amounts should be verified or calculated by the auditor and treated as an adjustment of the carrying value of the investments and of the cash interest income recorded. The general rule, based partly on conservatism, is that premium amortization should be based on the call date of the bonds if such a provision exists, whereas amortization of discount should always be figured based on the maturity of the bonds. The rule also gains justification from the fact that bonds are more likely to be called before maturity if the bonds are selling at a premium than if they are selling at a discount.

Market Value. As stated earlier, investments classified as current assets should either be valued at the lower of cost or market, or at least market value should be shown parenthetically. Market value is

also important in the case of long-term investments, since any permanent declines of a material amount should be reflected in the financial statements. For securities actively traded on the securities exchanges, closing prices at the end of each day are ordinarily available in large city newspapers or in various financial news publications. If no sale took place on the day in question, quoted bid figures, or the average of bid and asked figures, can be used as an indication of market value. In the case of securities which are traded "over the counter," the auditor can usually get recent sale prices and bid and asked figures from a security dealer who handles the securities in question. If such information is not available, reference should be made to the financial statements of the company issuing the securities. The auditor should be able to determine in a general way by careful study of the statements whether the securities are likely to have declined in value below their original cost.

In using published market quotation figures, the auditor must take great care to be sure the published description of each security agrees exactly with the securities owned. This is particularly important in the case of United States Government securities. There are bills, notes, bonds, and certificates of indebtedness, and often many different issues of each, distinguishable only by the interest rate or the maturity date. The auditor must also be sure that he interprets the price quotations properly. Corporate stocks and bonds are quoted in steps of one-eighth. United States bonds are quoted in thirty-seconds, but a price of 101 16/32 is often printed as 101.16. Thus the proper market value of a $10,000 bond would not be $10,116, but $10,150. State and municipal securities are usually quoted on a yield basis, such as 2.05 per cent, and bond tables must be used to convert the yield figures into market values.

Total market value of the securities is customarily used, rather than figuring each item at the lower of cost or market as in the case of inventories. One author has recommended that when market prices of securities held are in excess of cost, provision should be made for the amount of taxes which would be payable upon sale of the securities. This would be particularly important in the case of stockbrokers, who normally carry their securities at market, and investment companies which show unrealized appreciation on their investments.

If the client has already figured the market value of securities owned, the auditor should verify the prices used against published quotations and verify all extensions and footings involved in arriving at the final figure. If the client has not done this work, the auditor can do it, although the value of a double check of the

figures is lost. In such cases the client should at least review and approve the auditor's figures.

Determination That All Income Has Been Accounted For

In the examination of financial organizations holding large amounts of securities, internal control will usually be adequate to assure that all income from the investments has been properly accounted for. Some tests should be made, however, of the record of income received. The purpose of such tests is not primarily to show directly that all income had been recorded, but rather to show that the system of internal control is functioning and that accrual has been made of income earned at the end of the year.

For businesses which hold securities incidental to their principal activities, internal control over the income from the securities is often nonexistent, and the auditor should compensate for this deficiency by completely accounting for all income earned during the year. The following comments are predicated upon such a situation.

Bonds. The description in the audit working papers for each bond investment should include all information necessary to verify the income from the investment. Most important, of course, will be the interest rate and the interest dates. Working with this information, the auditor can schedule his verification of income through the use of four additional columns on his schedule of investments. As shown on schedule N, these columns would be

1. Interest accrued at the beginning of the year.
2. Interest earned during the year.
3. Interest received during the year.
4. Interest accrued at the end of the year.

In effect, these columns represent an analysis of an accrued interest receivable account maintained on a perpetual basis. The first column should agree with the final column in the audit working papers for the preceding year. The interest earned for each type of bond held should be calculated as based on the interest rate and the period the bonds have been held. The figure should be inserted in the second column. Each interest payment which should have been received is then scheduled in the third column and traced to the appropriate entry in the cash receipts record. The dates of entry should be carefully noted to show that there was no undue delay in recording the receipt of the interest. Accrued interest purchased should be entered in the third column as a negative figure. Accrued interest received at date of sale should be entered in the same manner as for any interest received.

The next step is to add across the figures in the first two columns, subtract the figures in the third column, and enter the difference in the fourth column. This final amount is, of course, the amount of interest accrued at the end of the period, and the amount should be verified by a calculation of the actual interest accrued at the end of the year. The total of this column should agree with and be cross-referenced to the trial balance figure for accrued interest receivable. The total of the interest earned column, after adjustment for amortization of premium or discount as shown in the investments schedule, should agree with and be cross-referenced to the interest income account, as was done on schedule N.

The above steps represent a complete verification of interest income, subject only to the possibility that all interest may not have been paid. Interest in default should be verified by reference to a published investment service or by contacting the debtor company, thus assuring the auditor that the failure of the records to show the income is not the result of a misappropriation. If there is assurance that delinquent interest payments will be brought up to date in the near future, the interest should be accrued and reported as income. If no such assurance exists no accrual should be made, and of course the carrying value of the investment itself should be carefully reviewed to indicate the possible need for a substantial write-down.

Stocks. Although there are no accruals to be verified in the case of stock investments, the verification of income received is more difficult than for bonds. Reference must be made to a published service, such as *Commercial and Financial Chronicle*, to ascertain what dividends have been declared on each company's stock and when those dividends were paid. Such publications also show the record date for each dividend—a factor of great importance if stocks have been bought or sold in the interim between the date a dividend has been declared and the date it is paid. The relationship between the record date and the date of purchase or sale will determine whether the client should have received the dividend.

OTHER TYPES OF INVESTMENTS

Investments in Subsidiaries or Affiliated Companies

When a controlling interest is held in a corporation whose activities are closely related to those of the parent company, ordinarily consolidated financial statements should be prepared in order to present the clearest picture of financial position and results of opera-

tions. If a controlled subsidiary is not to be consolidated, the burden of proof that the omission is proper and does not obscure the true financial picture should be on those who desire not to include the subsidiary in the consolidated statements. The auditor must be careful to ascertain that the reasons given are sound.

Subsidiaries to be consolidated present no particular auditing problems if the auditor has also examined the financial statements of the subsidiaries. If the subsidiaries have been examined by other competent independent accountants, the auditor of the parent company should be justified in accepting the subsidiary statements without comment. Some protection is gained, however, if the auditor expressing his opinion on the consolidated statements indicates in his certificate that figures for consolidated subsidiaries were accepted on the basis of the reports of other independent accountants.

When subsidiaries or affiliates are not consolidated, the auditor must be satisfied that the investment account has been consistently maintained in accordance with a generally accepted method. In most cases the cost method will be followed, but methods which compensate the carrying value of the investment account for changes in the book value of the parent's equity in the subsidiary are also acceptable. Regardless of the method followed, the auditor's main concern should be to see that the carrying value of the investment does not materially exceed the underlying worth of the investment. His conclusions must, of course, come from a careful analysis of the financial statements of the subsidiary if no market value figure is available. The reliance to be placed on the financial statements will depend on whether they have been examined by the auditor or by another independent public accountant.

Advances to nonconsolidated subsidiaries or affiliates present some additional problems. In the first place, written confirmation of the indebtedness should be obtained from the related company. Second, the terms of the advance must be noted to ascertain whether the advance can be classified as a current asset or must be classified as noncurrent. Last, the auditor must attempt to determine whether the advance is likely to be repaid in accordance with the established terms. This problem may involve not only reviewing supporting financial statements but also determining how the advance was utilized and the probable results of such utilization. Advances designed to permit expansion of manufacturing facilities or development of a patent obviously cannot be repaid in the immediate future. The question of eventual repayment will hinge on the profitability of operations with the additional plant, or the progress being made on the patent development. Thus the auditor may touch upon a

wide variety of matters in satisfying himself that an advance to a subsidiary or affiliate is properly classified in the financial statements and is carried at an acceptable dollar amount.

Mortgage Notes

Mortgage notes are customarily carried at cost, and of course must be classified as a noncurrent asset, if the terms exceed the operating cycle of the business. The notes should be examined at the same time that other liquid assets are counted. Each note should be payable to the client or be accompanied by an assignment by the original payee. Also to be examined in support of the notes are such documents as the mortgage agreement or trust deed, title policy, letter of title search or abstract of title, appraisal report, fire insurance policies, and tax receipts. The balance due on the mortgage should be confirmed with the debtor. Confirmation is especially important since most mortgage notes are liquidated by regular periodic payments, and the auditor should ascertain that all payments made have been accounted for. Payments are customarily applied first against interest which is due, and the auditor should review the allocations made between interest and principal. Supplementing this review, the auditor should calculate the approximate amount of interest income based on the average balance during the year and compare this figure with the recorded income.

Verification of the acquisition of a mortgage note should be similar to such verification for other investments. Of major importance will be the authorization for the acquisition and the paid check. In the case of the audit of a bank or a building and loan association, appraisal reports should be on hand evidencing that the maximum loan percentages set by law have not been exceeded.

To justify showing a mortgage note at cost less payments on principal, the auditor should be satisfied that the client can be expected to realize the full amount due. Of first importance here is the creditworthiness of the mortgagor. Regularity of past payments is a good indication, but in special cases the auditor should attempt to ascertain the mortgagor's ability to pay. The auditor should also make some investigation of the secondary protection which the mortgagee holds in the form of the mortgaged property. Reference to a title policy or an attorney's letter of title search should indicate whether the mortgagor had clear title which he could then mortgage. The mortgage agreement should be noted for evidence that it has been properly recorded in the public records to protect the interests of the mortgagee. In the event of any question about such legal matters,

opinion of the client's attorney should be obtained. Examination of insurance policies shows whether the mortgagee is adequately protected in the event of a fire or windstorm loss. The policies should be sufficient in amount to give full protection to the mortgagee and should contain endorsements assigning the proceeds of the policies to the mortgagee. Examination of paid tax bills provides evidence that no unpaid taxes have become prior liens against the property. Appraisal reports should provide some indication of the amount likely to be realized if mortgage payments are in default. If no recent report is available, inspection of the property may be warranted in order that the auditor may form some opinion of its present worth.

Cash Surrender Value of Life Insurance

A business may carry life insurance on an officer, partner, or key employee to compensate for the loss arising from the death of such person, or to provide funds to enable the business to purchase the deceased person's interest in the business. The latter arrangement is often of great importance in making it possible for the estate of the deceased person to be able to pay estate and inheritance taxes assessed against the estate. The business, on the other hand, cannot be forced into a position where it must accept a new part owner who is not fully acceptable to the surviving owners.

The auditor's concern when such policies exist is to satisfy himself that the interrelated items of premium expense and cash surrender value are fairly stated. In addition, if a strict accrual basis of accounting for the premiums is followed, there may also be a prepaid expense account for a portion of the premium. If the insurance is carried with a mutual insurance company, there may be an asset representing dividends left to accumulate, although ordinarily the dividends earned are likely to be used to reduce the premium payment for the following year.

The growth in the cash surrender value of the policy serves to reduce the true expense of the policy below the yearly cash outlay. The auditor should therefore ascertain that the balance of the account for the cash surrender value has been correctly figured and that the increase during the year has been credited to the premium expense account. The insurance policy will list the amount of cash surrender value at the end of each policy year. Although the true cash surrender value at any time prior to the end of the year will reflect a discount factor, the amount of the difference will not be material, and can be ignored if the client's fiscal year does not coincide with the policy year.

In addition to verifying the premium expense and cash surrender value by reference to the insurance policy, the auditor should also obtain confirmation of the amount of the cash surrender value from the insurance company. The confirmation should indicate that the policy is still in force with all premiums paid to date, the amount of the cash surrender value, the amount of any loans which are outstanding against the cash surrender value of the policy, and the amount of any accumulated dividends and the interest thereon. The confirmation should also give the name of the beneficiary of the policy. If the beneficiary is not the client company, the cash surrender value is not an asset of the company, and the premiums paid by the company become extra compensation to the insured person.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of investments in *Case Study in Auditing Procedure*, No. 8, published by the American Institute of Accountants. No investments were involved in the other two case studies selected for summarization.)

Case A (Steel Fabricator)

United States securities and accrued interest	$ 50,300
Total current assets	453,000
Total assets	565,000

The company's security investments are held in a safe deposit box which is under the exclusive control of the president.

The auditor maintained a running schedule of investment transactions in his working papers. All transactions during the year were verified by reference to purchase and sale confirmations and to authorization of the transactions in the corporate minutes. The securities were examined after the close of the year, and certificate numbers were carefully compared with the numbers recorded in the working papers. Income received was traced to the cash book, and the accrued income at statement dates was computed for entry by the client.

Machine Products Co
Marketable Securities - U S Governments

14

12/31/56

J.A.S
1/9/57

Description	Balance 1/1/56 Face	Balance 1/1/56 Prem/(Disct)	Purchases Face	Purchases Prem/(Disct)	Sales Face	Sales Prem/(Disct)	amortization	Balance 12/31/56 Face	Balance 12/31/56 Prem/(Disct)	Market Value 12/31/56 Price	Market Value 12/31/56 Total	Memo Proceeds of Sales	Memo Gain (Loss)	Accrued Interest Receivable Balance 1/1/56	Accrued	Received	Balance 12/31/56
U S Govt Treasury Bonds 2½'s, June 1, 64/69, J+D																	
# 25 C 18610 n	100 000 -	2 167 53					(257 52)+	100 000 - n	1 910 01	100 8/32 (n)	100 250 -			208 33	2 500	6/13 1 250 12/14 1 250 -	208 33 +
# 25 C 34291	50 000	962 17			5/15 50 000 -	919 28	4½ mos (42 89)+	—	—			50 246 15 +	(673 13)	104 17	468 75	5/18 571 79 (1)	
U S Govt Treasury Notes 1½'s, Apr 1, 1958, A+O																	
# 15 J 1346 n			5/13 50 000 +	(392 15) +			7½ mos 85 20+	50 000 - n	(306 95)	99 12/32 (n)	49 687 50			—	468 75	5/17 (937 5) (2) 10/2 375 00	187 50 +
	150 000	3 129 70	50 000	(392 15)	50 000 -	919 28	(215 21)	150 000 -	1 603 06		149 937 50	50 246 15	(673 13)	312 50	3 437 52	3 354 19	395 83
							to Acod Int Rec Col	1 603 06					20 50	Less Net Prem. amort	215 21		to B
								151 603 06						Net interest earned	322 31		
								to TB-A							Ia 50		

n Counted 1/10/57. These bonds are held in a safe deposit box at the Farmer's National Bank. The bank records show no access to the safe deposit box from 12/31/56 to the time of our count.

RECEIPT

The securities marked n above were counted in my presence and returned to me intact on January 10, 1957.

H H Onyegard
Treasurer

+ Traced to cash receipts record
H Examined brokers advice
(n) Per New York Times
+ Calculation verified
(1) Accrued interest sold
(2) Accrued interest purchased

These securities represent an investment of excess working capital and are being held solely for working capital needs.

As in past years, the securities are valued at cost less amortization. The difference between cost and market at 12/31/56 is not material.

Machine Products Co.
U. S. Treasury Tax Notes

12/31/56

J. A. S.
1/13/57

12/31/56	Purchase, U. S. Treasury Tax Notes, at par	1,000,000.00 ✓
		to B/S-L

✓ examined paid check

The above tax notes, plus accrued interest, are to be used to meet payments of Federal income taxes due in March and June, 1957.

✓ Certificates issued 1/5/57. Examined certificates and transmittal letter dated 1/6/57 from Farmers National Bank when letter and certificates arrived on 1/7/57. The certificates were in the name of Machine Products Co. and the certificate numbers agreed with the numbers shown in the transmittal letter.

Review Questions

1. What are the important points in instituting good internal control over investments?

2. Give examples of investments which are not readily marketable. How should these investments be classified in the balance sheet?

3. Is it possible that investments which have been held for several years might nevertheless be classified as current assets? Explain.

4. Why is it essential that the auditor insist that financial statements show the basis on which investments have been valued?

5. What procedures are covered under the objective of substantiating the balance sheet figure for investments through supporting internal records?

6. What additional audit work may be required if investments cannot be counted on the balance sheet date and cannot be kept under the auditor's control until the count is made?

7. Does the fact that certain securities are in the client's possession necessarily prove that the securities are owned by the client? Explain.

8. How are the serial numbers on stock or bond certificates useful to the auditor?

9. How should the auditor proceed if, in response to a confirmation request directed to a transfer agent, the agent replies that the securities had been forwarded to the client the day prior to the date the auditor made his cash and security counts?

10. What procedures are ordinarily followed in verifying a purchase of investment securities?

11. Should the exact amount of the net proceeds of a sale of securities ordinarily be credited to a single account? Explain.

12. In what ways may the market value of securities be determined?

13. Which columns in the auditor's schedule of bond investments and income can be cross-referenced to trial balance figures?

14. How would the audit procedures differ in the case of an advance to a consolidated subsidiary and a nonconsolidated subsidiary?

15. List the possible items of evidence which might be examined in support of a mortgage note.

16. What accounts might the auditor find in connection with a life insurance policy carried by a client on one of its officers?

Questions on Application of Auditing Standards

17. You are making an initial examination of your client's financial statements. Certain securities were held as an investment at the beginning of the year, but all have been sold during the year. State what procedures you would follow with respect to these securities, and state why you would use the procedures.

18. Your client is the beneficiary of an estate administered by a local attorney who is also serving as administrator for a number of other estates. In making an

examination of the estate, what problem are you confronted with in verifying the existence of securities in the estate? How can such a problem be solved?

19. When an auditor makes a security count, he should "examine" each certificate carefully. What points should be covered by this examination?

20. Your client invests idle cash resulting from the seasonal nature of the business in marketable securities. There are normally from two to six different issues involved and from five to ten purchase and sales transactions per year. You have previously recommended to your client that a separate subsidiary record be maintained for each issue held, but he has stated that there seems to be little justification for such a record since all the information is already in the control account. What advantages should your client be able to realize by maintaining such a record?

21. What information appearing on the face of a bond certificate will be useful to the auditor in computing the income from that bond for the year? The bond was purchased at a premium.

Problems

22. What is the total market value of a $1,000 U.S. Treasury 2⅞ per cent bond due in March, 1960, callable beginning March, 1955, if the market quotation is printed as 104.16?

23. Prepare any adjusting entries necessary to correct the records shown below as of December 31, 1956. Make corrections relative to prior years' income through retained earnings. All entries affecting these accounts made since acquisition of the bonds are shown below.

Bond Investment		*Interest Income*	
12/1/55 $1,038.00		4/1/56	$30.00
		10/1/56	30.00

Purchase information:

$1,000, 6% bond, price	$1,028
Accrued interest from 10/1/55	10
Total payment	$1,038

Maturity date—4/1/58

24. What adjusting entry, if any, would you recommend be made based on the facts set forth in the following account?

Cal-Kan, Inc.—$100 par common

	Dr.	*Cr.*	*Balance*
2/18 Purchase 100 shares	$6,500		$6,500
4/25 Stock dividend 50 shares			6,500
9/22 Sale 50 shares @ $50		$2,500	4,000

25. In connection with a recurring annual audit, you prepare a worksheet for marketable securities with column headings as shown below. Your client is not a dealer in securities. He keeps a list of the securities currently held but does not maintain an investment register.

Column No.	*Column Heading*
1	Description of Security (Name, interest rate, etc.)
	Beginning of Year:
2	Par value or number of shares
3	Carrying value
	Purchased and (Sold):
4	Date
5	Par value or number of shares
6	Cost
7	Profit or (Loss) on Sale
	End of Year:
8	Par value or number of shares
9	Carrying value
10	Market value
	Interest and Dividends:
11	Accrued beginning of year
12	Purchased
13	Earned
14	Received
15	Accrued end of year

Each column is identified by a number. For each column, you are to state:

(*a*) The source(s) of the information to be entered in the column.
(*b*) The principal ways in which the information should be checked in connection with your audit. (A.I.A.)

26. You are to make an examination of the bond investment account of the Sanders Company in connection with an examination of the financial statements as of December 31, 1956. This is the first time such an examination has been made. Your working papers should include provisions for analyzing all 1956 transactions, including those affecting profit and loss.

Transcripts of the accounts and a summary of pertinent information on brokers' advices of purchase or sale are given below.

Investment Account

1956		*Debit*	*Credit*	*Balance*
Jan. 1	Balance			$29,950.00
	10M Underhill Co.			
	($10,550.00)			
	20M Carlyle, Inc.			
	($19,400.00)			
Feb. 15	20M Arthur Corp.	$20,550.00		50,500.00
Sept. 1	Carlyle, Inc.		$9,816.67	40,683.33

Interest Income

1956			
Feb. 3	Carlyle, Inc.	$ 200.00	$ 200.00
June 5	Underhill Co.	250.00	450.00
July 2	Arthur Corp.	200.00	650.00
Aug. 4	Carlyle, Inc.	200.00	850.00
Dec. 3	Underhill Co.	250.00	1,100.00

Brokers' Advices

Date	*Quantity*	*Description*	*Price*	*Interest*	*Amount*
PURCHASES					
11/30/54	10M	Underhill Co. 5's J&D, June, 57/62	$103	$250.00	$10,550.00
2/1/55	20M	Carlyle, Inc. 2's F&A, Feb., 1960	97	.....	19,400.00
2/15/56	20M	Arthur Corp. 2's J&J, July, 1959	102½	50.00	20,550.00
SALES					
9/1/56	10M	Carlyle, Inc. 2's F&A, Feb., 1960	98	16.67	9,816.67

1. Set up a worksheet to analyze the year's transactions, beginning with a *corrected* balance at 1/1/56, and showing all 1956 entries as they *should appear*. Use the following column headings:
   A. Investment account
      1. Balance 1/1/56
         (a) Face
         (b) Premium or (discount)
      2. Purchases
         (a) Face
         (b) Premium or (discount)
      3. Sales
         (a) Face
         (b) Premium or (discount)
         (c) Profit or (loss) (memo only)

         } The total of these three columns will be the net cash proceeds of the sale.
      4. Amortization
      5. Balance 12/31/56
         (a) Face
         (b) Premium or (discount)
   B. Accrued Interest Receivable
      1. Accrued at 1/1/56
      2. Accrued during 1956

         (The total of this column plus the total Amortization column above is the interest income for the year.)
      3. Received during 1956 (Show the accrued interest purchased on the Arthur Corp. bonds as a negative figure in this column.)
      4. Accrued at 12/31/56
2. Prepare adjusting entries to correct the books at December 31, 1956, to agree with your worksheet, assuming the books have not been closed. Explanations for each entry should show clearly how the amounts were determined. Correct income of prior years through retained earnings.

27. Your client, the Roberts Mfg. Co., carries a $50,000 ordinary life policy on the life of its president, Wm. A. Roberts, allowing dividends to accumulate with the insurance company. The insurance is carried with the Sasnak Mutual Insurance Co. Write the confirmation request letter you would ask the client to sign (to be mailed to the insurance company) concerning the insurance policy.

28. How would you show in the balance sheet the facts concerning a $3,000 loan from an insurance company, secured by the $4,000 cash surrender value of a life insurance policy carried with that company?

29. Based on the data below,

(*a*) Prepare a columnar worksheet analyzing the account for the year showing transactions, adjustments and final balance at September 30, 1956.

(*b*) Journalize such adjustments as are needed to correct the investment account of the F Company at September 30, 1956.

In an interim examination of the accounts of the F Company for the calendar year 1956 you find the Investment Account as follows:

1956		*Ref.*	*Dr.*	*Cr.*
Jan. 1	Balance brought down		$108,936	
Jan. 31	Sold A stock	CB		$10,682
Mar. 31	Bought B common	VR	12,125	
June 30	Dividend on C common	J	10,000	
July 31	Sold C common	CB		8,750
Aug. 31	Sold D bonds	CB		22,500
Sept. 30	Interest on E mortgage	CB		350

Reference to the audit working papers of the preceding year shows that the balance at January 1, 1956 consisted of the following:

A Company common:	
1,000 shares bought in June, 1948, @ $10 per share	$ 10,000
2,000 shares bought in August, 1950, @ $8 per share	16,000
1,500 shares bought in May, 1953, @ $11 per share	16,500
B Company common:	
2,000 shares bought in January, 1954, @ $16.50 per share	33,000
C Company common:	
100 shares bought in August, 1949, @ $73 per share (par $100)	7,300
D Company 5% General Mortgage bonds:	
20—$1,000 bonds bought July, 1952, @ 98.4 (interest dates F & A)	19,680
E Company Chattel Mortgage on machinery:	
5%, $7,000 mortgage taken in September, 1955, in settlement of account receivable	6,456
	$108,936

Your examination discloses the following:

In January, 1956, 1,000 shares of the A Company common stock bought in May, 1953, were sold for $10,682, net of brokerage.

In March, 1956, 500 shares of B Company common stock were bought @ $24 per share plus brokerage, for $12,125.

In June, 1956, the C Company paid a 100% stock dividend—common on common.

In July, 1956, the F Company sold to its president for $125 a share 100 shares of C Company common stock, for which the president gave his check for $8,750 and a letter in which he agreed to pay the balance upon demand of the treasurer of the company.

On August 1, 1956, the D Company redeemed its 5% general mortgage bonds at 110 plus accrued interest.

In September, 1956, the F Company received one year's interest on the $7,000 chattel mortgage of the E Company which it holds. (A.I.A.)

10 · Property, Plant, and Equipment

The importance of capital goods in a highly developed economy such as that of the United States suggests that the audit verification of tangible fixed assets owned by a business enterprise would be a major problem. The problem is lessened considerably, however, by several significant factors. First, as implied by the term "fixed assets," the turnover of such assets is much slower than the turnover of current assets. As a result, the items carried over from year to year require less audit work once the entry for the original acquisition cost has been verified. A second factor is the relatively large dollar value of the average unit of property or equipment, which reduces the number of transactions to be verified for a given total dollar value as compared with inventory, for example. A third factor is the fact that errors in the amount at which property, plant, and equipment are stated will be less material in their effect on the over-all financial or operating picture than would be true of an error in stating any of the current assets. Current assets and the current ratio are of much more importance to creditors and stockholders than are noncurrent asset figures. Also, net income will ordinarily not be affected to the same extent by an error in the figure for plant assets as by an error in current assets. Cut-off errors will seldom affect net income, and the effect of any errors made will be spread in part over net income for each of the years the asset is used. Fourth and last, the relative risk of errors occurring through fraud is lessened by the fact that plant assets are less useful and less tempting to the employee who might be inclined to defraud his employer.

INTERNAL CONTROL

Prevention of fraud is of only secondary importance as a reason for good internal control over plant assets. The primary considerations are to secure close control over plant expenditures and to obtain maximum utilization of existing equipment. Accounting considerations also enter into the picture since depreciation and retirement entries must be based on adequate historical information. These various points are all embodied in the following discussion of the means of achieving good internal control over property, plant, and equipment.

Authorization of Expenditures

A formal plan of review and approval of all contemplated plant expenditures is essential to the effective control of such expenditures. The plan may, however, operate with several different levels of approval. Requests for minor expenditures not exceeding a stated amount might well require only the approval of the plant superintendent. Larger requests not in excess of a considerably higher maximum might be subject to the approval of a special committee composed of such persons as the plant superintendent, chief engineer, controller, treasurer, and possibly the president. Major expenditures expected to exceed the above limit might then be made subject to the approval of the board of directors.

Intelligent approval of requests for additional or more modern facilities and for major maintenance projects requires a broad approach to the problem. Proper perspective is possible only if all anticipated expenditures for a full fiscal period are submitted for simultaneous review. Also required as an estimate of the funds expected to be available for capital expenditures from such sources as depreciation charges, retained earnings, and additional financing. Since the requests can be expected to exceed the funds available, there must be some basis for choosing the most worthy requests. First to be approved will usually be expenditures of an emergency nature which cannot be postponed. Remaining requests can then be arrayed on some common basis, such as the percentage return expected on the proposed expenditure or the number of years required to recover the amount expended. As a rule, of course, the least productive expenditures will then be lopped off to bring the total proposed expenditures within the limitations of available funds. Sometimes, however, certain projects which appear to be less profitable than others will still be given precedence. A possible reason

might be a long-run consideration, such as the need for a balanced line of products or the desire to have products of advanced design even though the immediate acceptance may be limited. Finally, of course, there is always the possibility that an attempt will be made to secure additional funds in order to permit undertaking worthy projects which otherwise might have to be postponed.

Accounting for Expenditures

The capital expenditure budget resulting from the process described in the preceding section provides the means for over-all control of plant expenditures. Monthly comparisons of budgeted and actual expenditures would show in general how effectively such expenditures were being controlled, but more detailed information would be required to permit corrective action to be taken where necessary. The usual solution to this problem is a work order system whereby actual expenditures are accumulated under a separate work order number for each approved project. Periodic reports of budgeted and actual expenditures for each work order will then show how each work order is progressing and whether costs are being kept within the budget limits.

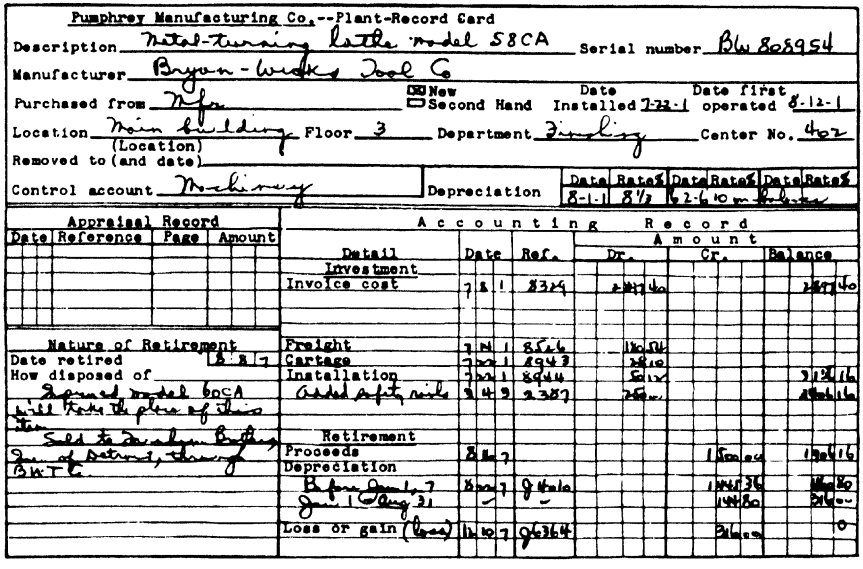
Expenditures must also be properly classified to show whether they should be capitalized or expensed. Strict accounting theory can well be sacrificed in part to considerations of expediency in classifying the expenditures. A minimum limit for items to be capitalized will result in some true capital items being charged to expense, but if the limit is intelligently set the distortion of net income will be slight and the savings in recordkeeping costs will be substantial. Small tools are frequently expensed when purchased under such a plan, although the toolroom may well keep unit records on the tools to control their use.

One factor in setting a minimum limit for expenditures to be capitalized would be the size of the company. The figure might be $50 for a small company but several hundreds of dollars for large companies. Such a limit must not be used to circumvent company policy. Orders for large quantities of small items which are normally capitalized should not be broken down into smaller orders, for the purpose of having the purchases expensed as being under the minimum figure.

Plant Records

After items of property or equipment have been acquired, a detailed accounting record of them should be maintained in a plant

ledger by means of a separate page for each item. A sample plant ledger form is shown below.



Pumphrey Manufacturing Co.--Plant-Record Card

Description Metal-turning lathe model 58CA Serial number BW 808954

Manufacturer Bryan-Worker Tool Co

Purchased from Mfr ☒ New ☐ Second Hand Date Installed 7-22-1 Date first operated 8-12-1

Location Main building (Location) Floor 3 Department Tooling Center No. 402

Removed to (and date)

Control account Machinery Depreciation Date 8-1-1 Rate% 8½ Date Rate% Date Rate%

Appraisal Record

Date	Reference	Page	Amount

Accounting Record

Detail	Date	Ref.	Amount Dr.	Amount Cr.	Balance
Investment					
Invoice cost	7 8 1	B34	2 [illegible] 40		[illegible] 40
Freight	7 14 1	B56	110 [illegible]		
Cartage	7 22 1	B943	2 [illegible] 10		
Installation	7 22 1	B944	6 [illegible]		3 [illegible] 16
Added safety guards	8 4 9	2387	26 [illegible]		[illegible] 16
Retirement					
Proceeds	8 8 7			1 [illegible] 00	[illegible] 16
Depreciation					
B fwd Jan 1, 7	8 [illegible] 7	B [illegible]	[illegible] 36		[illegible] 80
Jan 1 thru Aug 31		B [illegible]	1 [illegible] 80		2 [illegible] 00
Loss or gain (Loss)	8 10 7	B364	2 [illegible] 00		0

Nature of Retirement
Date retired 8 8 7
How disposed of
Sprocket model 58CA
will form the place of this
Sold to Arnold Supply
Co. of Detroit, Mich.
BWT

(*Front*)

DETAILS OF DEPRECIATION

PARTICULARS	DATE	REF.	DR. OR CR.	DETAILS	BALANCE
Previous 19x1 (5 months)	12 31 x1	J 381	Cr	109 59	109 59
– 2	– – x2	J 3840	–	263 01	372 60
– 3	– – x3	J 4736	–	281 16	653 76
– 4	– – x4	J 562	–	287 20	940 96
– 5	– – x5	J 8742	–	287 20	1228 16
– 6	– – x6	J 9250	–	217 20	1445 36
– 7 (8 months)	– – x7	J 6365	–	144 80	1590 16
Cancelled & Post	– – –	J 9010	Dr	1590 16	0

(*Back*)

Plant-Record-Unit Form (E. L. Kohler, *A Dictionary for Accountants* [New York: Prentice-Hall, Inc., 1952], p. 321.)

The functions of such a record are as follows:

1. It establishes accountability over each plant asset. An identifying serial number shown on each machine and recorded on each plant ledger page facilitates the taking of a physical inventory of plant assets. Such an inventory is essential to determine whether items have been dismantled, scrapped, or sold without proper treatment in the accounting records and whether theft or other losses have occurred.

2. It provides a means whereby depreciation charges can be accurately determined. Also, information is provided for the adjust-

ment of monthly or annual depreciation charges for assets which have been sold or retired, or have become fully depreciated.

3. All information is readily available as to original cost and accumulated depreciation so that appropriate entries may be made when an asset is disposed of. The reader should recognize how difficult it is to obtain such information in the absence of a plant ledger.

4. The record of experience with each machine, showing period of use and major repairs and improvements, provides a useful guide to the purchase of additional or replacement equipment.

To be certain that the plant record is being accurately maintained, regular trial balances should be taken of both cost amounts and accumulated depreciation.

Alternative Records

So far as accounting needs alone are concerned, a small firm which does not feel that a formal plant ledger is warranted can obtain adequate information by use of what may be referred to as a "lapsing schedule." An example of such a schedule follows on page 322, with a few illustrative entries shown.

The above schedule is based on taking straight line depreciation at one-half the annual rate in the year of purchase and in the year of disposition. Depreciation for each year of anticipated use is prefigured and entered in the proper column at the time of purchase. When an asset is retired, the cost amount is entered as a deduction in the cost column and any depreciation which has not yet been charged to expense is deducted in the depreciation columns which are involved, as when the 1956 Chevrolet was traded in. This same information can then be used to prepare the corresponding general ledger entry. The total of the cost column should at all times balance with the corresponding general ledger account. The depreciation columns provide the necessary information concerning the amount of depreciation to be charged each year.

Retirements

All maintenance or special work done in the factory should be authorized by work orders. If this plan is followed and the work orders are carefully analyzed in the accounting department when expenses are incurred against them, the accounting department is put on notice whenever a work order is for dismantling a machine or moving it to the shipping dock for eventual disposition. The ac-

LAPSING SCHEDULE

Date	*Description*	*Life*	*Cost*	*Annual Depreciation*					
				1956	*1957*	*1958*	*1959*	*1960*	*1961*
2/1/56	1956 Chevrolet Coupe	4 yrs.	$2,185.60	$273.20	$546.40	$546.40	$546.40	$273.20	
3/21/56	National Cash Register	10 yrs.	921.87	46.10	92.19	92.19	92.19	92.19	$92.19
8/14/56	Refrigerator display case	10 yrs.	795.75	39.79	79.58	79.58	79.58	79.58	79.58
5/5/58	1956 Chevrolet coupe traded in on '58—see below		(2,185.60)			(273.20)	(546.40)	(273.20)	
4/5/58	1958 Chevrolet sedan	4 yrs.	2,321.57			290.20	580.39	580.39	580.39
			$4,039.19	$359.09	$718.17	$735.17	$752.16	$752.16	$752.16

counting department can then make the appropriate general ledger and plant ledger entries concerning the retirement. Such an arrangement makes it impossible for the plant personnel to dispose of any assets without the accounting department being put on notice that such an event has occurred.

Internal Reports

Many of the internal reports which would be useful to management in controlling property, plant, and equipment have already been mentioned. Included would be a monthly report showing budgeted and actual plant expenditures for the month and for the year to date. Supplementing this report should be a list showing the status of all plant acquisitions approved for the year. For each item the estimated cost, actual cost to date, and amount over or under the estimate should be shown. Notations can be added showing expected starting or completion dates if known, percentage complete at the time of the report, and reasons for any large variances between actual and estimated costs.

Another report might schedule all additions and deductions made to the various plant accounts and the related depreciation accounts. In addition, a departmental breakdown showing depreciation charges for the month and year to date compared with the previous year will usually be helpful. Proceeds from disposition of plant assets and resulting gains or losses could also be shown in this report. Any adjustments resulting from the taking of a physical inventory of plant assets should be clearly labeled.

Since maintenance and repair expenditures are closely related to the complete picture of the plant assets and their physical condition, a schedule of those expenses should accompany the above reports. A supplementary report detailing the expenses according to individual work orders should also be useful.

Internal Auditing

Following the typical pattern, the internal auditor should review the policies and practices concerning plant assets and make adequate verification for statement purposes. Included would be all aspects of the acquisition, care, depreciation, and disposal of the assets.

Budgeted plant expenditures should be reviewed for reasonableness. Tests should be made of the accounting for charges against the various work orders, and invoices and other supporting data should be examined. Reported figures comparing budgeted and actual ex-

penditures should be verified, and excessive variances from budgeted amounts should be investigated. The internal auditor should also satisfy himself that proper distinction was maintained between capital and revenue charges.

The plant ledger should be balanced with the related general ledger accounts, and depreciation rates and the monthly or annual depreciation charges should be reviewed. Entries recording the retirement or disposal of plant assets should be verified. The auditor should check to see that all related figures have been removed from the records and that any gain or loss has been properly treated.

The physical inventory of plant assets is a very important phase of plant accounting, and the internal auditor should review the instructions for taking the inventory to be certain that they are satisfactory. He should also observe and make tests of the actual inventory process in order to satisfy himself that the inventory was correctly taken and proper adjustments made to the plant ledger.

Finally, the internal auditor should make an over-all appraisal of the plant asset situation for the purpose of recommending any improvements. Included would be the physical care and protection being given to such assets, the procedures for authorizing purchases or retirements, maintenance policies, adequacy of records being maintained, policies concerning depreciation charges and minimum amounts to be capitalized, and the various reports which are issued.

STANDARDS OF STATEMENT PRESENTATION

Basis of Valuation

As in the case of inventories, to avoid any misunderstanding by persons reading a financial statement, the basis of valuation for all plant assets should be stated. The generally accepted basis of valuation is cost less depreciation, and the Committee on Accounting Procedure of the American Institute of Accountants has several times reaffirmed its preference for that method. The effects of inflation and changing price levels have, however, brought considerable pressure on the committee to change its position, and the committee reports that it is continuing to study the problem.

Those who would prefer to see depreciation charges based on current price levels or on replacement costs seem to have considerable justification for their position. They point out that in their opinion income determined through the use of historical costs is overstated,

and that companies following this plan may fail to maintain their original capital in terms of productive capacity unless they retain a substantial part of their earnings. This need for retaining enough earnings to maintain the original physical capital is not always recognized, however, and in addition there are many pressures which make it difficult to retain sufficient earnings. Stockholders frequently do not understand the effect of rising prices and assume (with considerable justification) that reported profits are true profits, all of which should be available for dividends. Furthermore, since income taxes and wage negotiations (in part) are based on reported profits, the effect is to siphon off for taxes and wage increases, amounts which are really a return of capital.

These arguments are strong indeed, and many persons, including the author, feel that they outweigh the objectivity which is gained through adherence to historical costs. The fact that all companies would not change at once in the event that approval were given to some form of current cost basis is a problem, of course, but it is hardly more serious than experience under the various methods of inventory costing. In addition, the change would represent a move in the direction of more realistic reporting of net income.

The means of accomplishing the change, in terms of the preference of the author, would be as follows. Depreciation would be based on asset values adjusted for changes in price level measured by some selected price index, possibly the wholesale commodity price index. Asset amounts and accumulated depreciation figures would continue to be based on historical costs, but the additional depreciation charged to expense would be credited to a capital adjustment account. The balance of this account would not be available for dividends, and would be reported in the balance sheet as an adjustment of paid-in capital. In the event of falling price levels the same method would continue, and the adjustment account would properly have a debit balance.

The above comments are, of course, merely a possibility for the future. For the present, any departure from historical costs in financial statements accompanied by an auditor's opinion would require that the opinion be qualified on the basis that the statements do not reflect generally accepted accounting principles. As recommended by the Committee on Accounting Procedure, the auditor might, however, encourage the use of supplementary financial statements based on current price levels. Such supplementary statements could then be used to explain and justify the fact that all profits reported on an historic basis are not available for dividends, wage increases, price reductions, or tax payments.

Liens

Any liens on plant assets resulting from chattel or other mortgages must be clearly stated in connection with the particular assets involved, to show that they would not be available to general creditors upon liquidation. The liabilities which are secured by such assets should also carry some notation indicating the security which is involved.

Depreciation Not to Be Netted Against Asset Balances

The amount of accumulated depreciation is a useful figure to the person reading a financial statement, and it should not be buried by showing assets only at their net carrying value. The accumulated depreciation figure gives some idea of how modern a plant a company owns. When related to the annual depreciation charge, the figure can be used to give some indication of when additional funds may be needed for plant replacement.

Classification

Two problems of classification are involved in the presentation of plant assets. The first is related to the fact that only productive assets should be classified as plant assets. Thus any land, buildings, or equipment which are held for investment purposes must be shown as investment assets rather than under the plant classification. Also, any idle or abandoned assets should be shown under some other caption, and they should be fully described to show the true facts. Standby equipment should not be confused with items which are idle or abandoned. Standby equipment is a part of the regular productive plant, even though used only on very rare emergency occasions.

The second problem of classification involves an adequate breakdown of the productive plant to give a clear picture of just what types of assets are owned. Land should always be classified separately, particularly since it is not subject to depreciation. If a company owns depletable mining lands and owns material amounts of other land which is not subject to depletion, those two groups should be shown separately.

Other productive assets should also be broken down into separate classifications based on materiality of the amounts involved, differences in the basic nature of the assets, and differences in depreciation rates. Thus any or all of the following classifications might be used,

depending on the amounts involved: buildings, machinery and equipment, automotive or transportation equipment, tools, dies, jigs, and patterns. Construction work in progress might be another important classification in some instances. These classifications are only suggestive, and many others could be used. For instance, electric utilities may classify their plant assets under the headings of generating, transmission, distribution, and administrative facilities.

Fully Depreciated Assets

If material amounts of fully depreciated assets are owned and in use, the statement reader should be put on notice, since these assets are contributing to the production of income without any corresponding charge for depreciation. Also, these assets may require replacement in the near future. Some companies write off fully depreciated assets against the accumulated depreciation. In such cases the information as to the cost of fully depreciated assets currently in use may be given parenthetically or as a footnote. If both the assets and the accumulated depreciation are being carried in the accounts, the assets can be shown under a separate classification. If they are included with the figures for other similar assets, that fact can be footnoted or a parenthetical comment can be made, as in the following example:

> Machinery and equipment, at cost (including $154,250 of fully depreciated facilities)

Disclosure of Amount of Depreciation Charged Against Income

The amount of depreciation charged during the year may be important for several reasons. First, as stated earlier, the figure is useful to the statement reader in estimating the approximate age of the plant and the probable date when replacement may be necessary. Also, depreciation is usually a substantial fixed charge, and the figure may be important in estimating net income under various rates of operation. Lastly, since depreciation is a non-cash expense, the figure gives some indication of the cash inflow which is available for purchasing replacements, expanding plant facilities, or financing other activities. If the amount of depreciation expense is not shown as a separate item in the income statement, the total amount of depreciation charged should be reported parenthetically or by footnote.

VERIFICATION OF STATEMENT AMOUNT

The independent auditor's approach to the verification of plant assets differs materially from the approach followed in verifying current asset figures. In the case of cash, receivables, inventories, and investments, the auditor deals primarily with those items which constitute the ending balance of the account. He attempts to satisfy himself that there are sufficient assets to justify the statement figure. Although the auditor has this same concern with respect to the figures for plant assets, the long life and low turnover of such assets make it possible to reach a conclusion in a different manner. Once the balances of the various property accounts have been verified in connection with an initial audit, the auditor in his subsequent examinations has only to examine those transactions which have taken place during the intervening period. Such an approach is not practical for current assets because they usually undergo a complete turnover between audits.

The following are the auditor's objectives in verifying statement figures concerning plant assets:

1. To substantiate the balance sheet figure through supporting internal records.
2. To determine that plant assets have been properly valued.
3. To establish the existence of those assets carried in the balance sheet.
4. To determine the ownership of the assets and the existence of any liens against them.

Substantiation of the Balance Sheet Amount Through Supporting Internal Records

In substantiating the balance sheet figure for plant assets through the examination of supporting internal records, the auditor will apply relatively few procedures. Cut-off tests are not made because cut-off errors, since they will seldom affect net income, are not likely to have a material effect on the statements. Assets retired or disposed of during the year but not recorded may involve losses and are thus an exception, but such transactions should be detected when verifying the valuation of plant assets. Furthermore, cut-off errors in recording the purchase of plant assets should be revealed through the search for unrecorded liabilities, as discussed in the chapter on liabilities.

Nothing appears in this section about the verification of entries to the general ledger accounts because such verification is thoroughly

covered in connection with the next objective, which concerns the valuation of plant assets. Thus the only procedure to be discussed under this objective relates to the verification of trial balances of the detailed plant records. In small companies, which are not likely to maintain a plant ledger, even this procedure is eliminated.

Trial Balance of the Plant Ledger. When the client has taken trial balances of the individual plant ledger balances for cost and accumulated depreciation on the balance sheet date or shortly before, the auditor should make some examination of the trial balances to prove their authenticity. Tests to be made need not be nearly as extensive as those which would be made of an accounts receivable trial balance, however. The explanation lies in the reduced relative risk that the plant ledger trial balances would be intentionally misstated and the fact that transactions during the year are quite thoroughly examined.

The auditor's first step after obtaining the trial balances should be to compare the totals with the balances of the general ledger accounts for asset cost and accumulated depreciation. Next, test comparisons should be made of trial balance amounts with the corresponding plant ledger figures. These comparisons ordinarily need not be extensive enough to establish the accuracy of the trial balance. In most cases it will be sufficient if the tests are adequate to establish that the auditor has in fact been given a trial balance which is based on the amounts in the plant ledger. Under these circumstances, an adequate test may consist merely of selecting several groups of items from the trial balance tape and comparing each figure in each group with the corresponding figure in the plant ledger. Any unusually large figures appearing on the trial balance should also be verified. In most cases such tests would not have to exceed 10 per cent of the total dollar amount of the assets.

Although as a rule a trial balance should be refooted by the auditor, relative risk suggests that such a procedure is seldom necessary in the case of a plant ledger trial balance. If the auditor is being assisted by a comptometer operator, however, the cost of proving the footing of the trial balance may be nominal and thus warrant the additional assurance to be gained.

Trial Balance of Construction Work in Process. Large commercial companies and most public utilities do much of their own construction work on additions to plant and equipment. During the construction period expenditures relating to such projects are commonly charged to a construction work-in-process account. The balance of this account should be supported by the charges made against the individual work orders for the work being done, and the auditor

should prove the trial balance of these charges. He should then review the open work orders for any which are essentially repair or maintenance projects, and all charges to such work orders should be transferred to appropriate expense accounts. Any work orders covering plant assets which have been completed should be noted and the balances transferred to the appropriate plant accounts. Depreciation should be provided for on any assets which were placed in use before the end of the year.

Charges against the open work orders should be verified in the same manner as additions to the various other plant accounts. Matters concerning such verification are discussed under the appropriate heading in the following section, which deals with the second of the auditor's objectives.

Determination That Plant Assets Have Been Properly Valued

Three different types of entries are made to the plant accounts as a rule, and representative entries of each of these types must come under the auditor's scrutiny if he is to satisfy himself that ending balances are fairly stated. The entries represent either additions to the net carrying value of plant assets, retirements of assets, or periodic entries for depreciation.

Additions. The broad area of plant additions includes the acquisition of new assets, improvements to existing assets, and overhauling or replacement of parts of existing assets when such work has the effect of increasing the expected useful life of the assets. Expenditures designed to increase the useful life of assets are frequently charged against accumulated depreciation.

In verifying additions, the auditor's first step will usually be to analyze all charges to asset or accumulated depreciation accounts and summarize them on a work sheet similar to schedule U-1. Each major plant expenditure should be listed with adequate identifying and explanatory information. A few smaller items should also be individually listed to make the auditor's verification representative, but most of the smaller items can be grouped together in one balancing figure as in U-1. As always, the auditor's intent should be to cover the major part of the dollar total while examining only a minimum number of individual items.

Supporting data. The various documents supporting the items listed or described above should then be pulled from the files by the auditor, or preferably by one of the client's employees. Included will be disbursement vouchers with supporting invoices and re-

ceiving memos, and journal vouchers. The journal vouchers will usually be supported by work orders which may in turn have underlying data in the form of invoices, material requisitions, and labor tickets.

If construction work has been done by independent contractors, architects' certificates should be available showing percentage completion and stating that the work has been satisfactory. Such certificates should be available in support of both progress and final payments.

The supporting data should be compared with the listed amounts on the auditor's work sheet and the work sheet figures tick-marked to show that the amounts are correct. The auditor should also review the supporting data for proper approvals and indication of receipt of materials at this time. If there is any question about the actual amount disbursed in any given case, the paid check is further evidence of the amount involved.

The supporting data should be watched for any indication that only part of a total amount due may have been paid. For example, a construction contract may entitle the purchaser to withhold a stated percentage of each progress payment until the job has been completed and accepted. Such amounts should be recorded as a liability.

Amounts properly capitalized. In accordance with generally accepted accounting principles, only expenditures which will benefit future years should be capitalized. When the auditor reviews the data supporting additions to plant asset accounts he should note whether generally accepted accounting principles were adhered to in treating the amounts as asset additions. Tick marks should be used to indicate that such a review was made and that tick-marked items have been properly capitalized.

Amounts which are capitalized should be recorded net of any cash discounts allowed for prompt payment. Transportation and installation costs are properly included in the total amount capitalized. If assets have been constructed by the client, all material and labor costs are properly included in the amount to be capitalized. There is no set rule as to the proper treatment of overhead charges on such jobs. Certainly any overhead expenses directly attributable to a given project should be capitalized. If normal overhead items also benefit the project, regular overhead can be added to the total construction cost at the normal rate. One possible restriction is that the capitalization of overhead should not relieve regular production of amounts which would normally be charged against such production.

As an expedient, purchases of small tools can be charged directly

to expense if net income is not distorted by such treatment. Some companies, however, follow the more elaborate method of treating small tools on a perpetual inventory basis.

Maintenance and repairs. The procedures described above should be adequate to assure the auditor that the total additions to plant assets have been correctly stated, and reflect transactions which were properly capitalized. But to satisfy himself that proper distinction has been maintained between capital and revenue charges, the auditor must also direct his attention to the accounts which contain the revenue charges related to plant assets. These will usually be the repair and maintenance accounts.

Tests of the data supporting entries to these accounts should be made, but they need not be nearly as extensive as the tests of capitalized amounts. The reduced need for testing is justified largely by the fact that the individual charges will tend to be relatively small. As a result, a test of a few carefully selected items should suffice, particularly if the client has good internal control. If a properly qualified person in the accounting department designates how each expenditure is to be recorded, the results of his decisions can be accepted provided that those items tested show his judgment to be sound.

Among the items to be "carefully" selected should be any large or otherwise unusual amounts detected in the course of the auditor's over-all review of the repair expense accounts. If the auditor detects any material variations in repair expenses from year to year or from month to month, the causes for those variations should be sought out by inquiry and by tests of unusual items which appear to have increased the total amount. The auditor should also scan the detailed record of charges for the year, seeking any items which appear unusual or out of line.

In setting the scope of his examination pertaining to the classification of capital and revenue charges, the auditor may well be guided by the relative risk factor in making his decision. In a year of poor earnings, or in a year when a high earnings figure might help assure the success of additional financing, the auditor should concentrate his examination (although not exclusively) on the review of charges to the asset accounts to detect any attempt to inflate earnings by capitalizing charges which should be expensed. Conversely, in a year when high earnings might make the negotiation of a reasonable labor contract more difficult, or in a year when income tax reductions have been announced to be effective in the following year, the auditor might well broaden his examination of expense charges

on the theory that the client might endeavor to conceal part of the income for the year by overstating such charges.

Retirements. All major retirements and a representative sample of smaller ones recorded during the year should be scheduled for verification as was done on U-3. The verification tests should be designed to assure the auditor that asset and depreciation accounts were relieved of the proper amounts, that any proceeds of sales were fully accounted for, and that resulting gains or losses were properly treated. The cost of assets retired should be verified by reference to detailed plant ledger cards, or in the absence of a plant ledger, by reference to the entry for the original purchase in the general records. The accumulated depreciation should likewise be verified against the plant ledger card, but in addition it should be independently verified by the auditor, based on the original cost, period of use, and established rate of depreciation. Trade-in allowances received should be verified against the purchase records for the new asset acquired. Substantial proceeds from sales of usable assets should be traced to the record of cash receipts. Proceeds of sales of scrap from junked machinery are not usually considered in figuring the gain or loss on disposition, but are merely recorded as other income. The total amount of gain or loss on disposition, reflecting the net effect of original cost, accumulated depreciation, and proceeds of sale, should be cross-referenced to the appropriate income or expense account. Gains or losses which are material and would therefore distort net income are properly taken directly to the retained earnings account.

Unrecorded retirements. One of the most troublesome problems in the audit of plant accounts is the possibility of unrecorded retirements. The problem exists not so much because clients find this a convenient way to overstate assets or manipulate net income, but because the necessary retirement entries are so easily overlooked. Someone in the factory, for instance, decides that a machine has served its useful life and the machine is consigned to the scrap heap. Factory personnel naturally are most concerned about their own production problems and decisions and may not realize that many of their decisions may have accounting implications. Consequently the machine goes to the scrap heap and its cost stays on the records. If the machine is not yet fully depreciated, depreciation continues to be charged, a loss remains unrecognized, and the asset account and the related depreciation account are overstated.

If the machine has been traded in or sold for cash, the supplementary transactions give the accounting department a chance to detect the retirement, but even this opportunity may be overlooked.

In smaller businesses the relatively untrained bookkeeper may not even recognize the implications of such transactions.

For the larger business, where adequate internal control is practicable, the means of assuring that the accounting department will be put on notice that retirements have occurred have already been discussed. The first of these is the requirement that all handling of machinery be authorized and accounted for on work orders. This requirement then gives the accounting department an opportunity to note what has occurred and make the additional entries which are required. The second is the physical inventory of plant assets, which will reveal any retirements which have inadvertently been overlooked.

Regardless of the internal control, the independent auditor should make some investigation to satisfy himself that material amounts of unrecorded retirement do not exist. The investigation can, of course, be very limited when internal control is adequate.

Some of the techniques which the auditor can employ in his search for unrecorded retirements are as follows:

1. Question management and supervisory personnel in the factory about retirements which they know have occurred.
2. Review work orders, tracing any indicated retirements to the records to confirm that they have been recorded.
3. Investigate major plant additions to ascertain whether they represent additional facilities or replace old assets which have been retired.
4. Review miscellaneous income accounts for possible proceeds of sales of machines which have been scrapped or junked. (Since there is seldom satisfactory control over such proceeds, the auditor should also attempt to satisfy himself that the proceeds of known dispositions of plant assets have been accounted for.)
5. Investigate the possibility that major changes in plant layout or in the type or design of the product being produced may have resulted in the retirement of some plant assets.
6. Review plant ledger records on a test basis to verify that all items not noted as being on hand at the time of the last physical inventory have been removed from the accounts.
7. If insurance coverage on buildings or contents has been reduced, investigate the possibility that part of the plant assets may have been sold or otherwise disposed of.

The reader should be careful not to assume that all the above procedures would be used in every audit. Rather, each situation must be appraised and only those procedures which appear warranted in

the particular case should be applied. Then, too, part of the procedures should become almost automatic. For instance, any time the auditor learns that a product change has occurred he should immediately begin to wonder whether the change may have made obsolete some of the client's inventory or plant equipment. Such automatic reactions are the sign of a person who has the aptitude and innate curiosity of the successful auditor.

Depreciation. The allocation of the cost of plant assets against the revenue which they help to produce represents the third and last phase of the proper valuation of those assets. Thorough understanding of the method of determining periodic depreciation and of the method of handling retirements under the various depreciation techniques is an essential prerequisite to this phase of the examination of plant accounts. The various methods are summarized below, but the reader should consult an accounting text on this subject if he does not have a complete understanding of it.

Of the two fundamentally different approaches to the recording of depreciation, the unit depreciation method is most widely used. Although the composite rate method is simpler to apply, the results are less accurate because it is an averaging method. The handling of retirements under the two methods is quite different. Under a unit approach the actual depreciation to the date of retirement is taken into consideration in figuring gains or losses. Under the composite method, since it is based on averages, retirements are always assumed to be fully depreciated, and no gains or losses are recognized except in unusual cases.

The more common bases for calculating the periodic depreciation charge are listed below. The methods have widely divergent effects on the determination of income and the net carrying value of depreciable plant assets.

1. Straight line (units of time).
2. Hours used or units of output.
3. Sum of years' digits.
4. Fixed percentage on diminishing balance (the Internal Revenue Service now recognizes an approximation of this method which uses a rate double the straight line rate).
5. Replacement method.
6. Retirement reserve method.

Audit considerations. The auditor should be concerned about three things in the matter of depreciation—adequacy, consistency, and accuracy. Of course the primary responsibility for the adequacy of depreciation rates rests with management, but the auditor should

attempt to determine whether management has made an intelligent and conscientious effort to arrive at a meaningful life estimate in figuring depreciation rates. In evaluating the rates selected by the client, *Bulletin F,* Internal Revenue Service, offers a useful guide. In the last analysis, however, the auditor's own appraisal of the adequacy of the the client's depreciation rates and the amount of accumulated depreciation is most important. Even though the auditor is not an expert in this field, general knowledge, common sense, and careful observation should be sufficient to permit him to reach some useful conclusions. For instance, large amounts of fully depreciated assets, or excessive recurring losses on assets retired, carry strong implications about the adequacy of depreciation charges.

The auditor's job is not to satisfy himself that the client's life estimates agree with his own to the nearest year. If the client has attempted to arrive at reasonable estimates, the auditor needs merely to be satisfied that the estimates are in fact reasonable. If the client has estimated a life of fifty years for a building and the auditor is convinced that a life of sixty years would be more correct, there is hardly a reasonable basis for disagreement. But if the auditor's estimate is twenty-five years, or one hundred years, then certainly the matter should warrant further investigation and discussion.

In general, however, the auditor's review will be less detailed than is implied above. He should satisfy himself that asset classifications cover items which have a similar life expectancy, and that the rates applied to each group are in line with his judgment. He should also form some idea of the age and condition of the entire plant and be satisfied that the accumulated depreciation is roughly indicative of the age and physical condition of the plant.

The matter of consistency relates to changes in the method or rates used in figuring depreciation. Reference to the work papers for the preceding year and a knowledge of what was done in the current year should indicate whether the client has made any significant changes. Revised depreciation rates based on a sound reappraisal of life estimates ordinarily need not concern the auditor. A qualified opinion on the financial statements may be required, however, if rates have been revised without cause or if a new method of depreciation has been adopted, and if net income is materially affected as a result.

The auditor's third consideration, accuracy, simply involves the mathematical computation involved in applying depreciation rates to the respective asset figures. Note should be made here that depreciation has been properly figured on additions and retirements during the year. Occasionally depreciation will be figured to the

nearest month in such cases, but most companies follow a policy of taking one-half of the annual depreciation in the first and last years. Another variation is to take a full year's depreciation the first year and none the last, or vice versa. Any of these plans should be acceptable if consistently followed. The auditor should also be satisfied that no depreciation is being charged on fully depreciated assets.

The manner in which the auditor's working papers might show the verification of depreciation is suggested on schedule V-1.

Making an Initial Audit. The preceding comments relative to the auditor's objective of satisfying himself on the proper valuation of plant assets have been predicated upon the assumption that the auditor made a similar examination in the preceding year. Only the entries for additions, retirements, and depreciation for the current year were subjected to scrutiny since the previous examination would have covered the balances in the accounts at the end of that year. But what does the auditor do when he is making an examination for the first time for a client who has been in business for fifty years or more? It will obviously be impractical to make an examination of the changes in the plant accounts during each of the preceding years.

If another independent auditor examined the financial statements for the preceding year, there might appear to be no problem. That is not quite true, however, because the new auditor, in expressing an opinion on the financial statements, must take full personal responsibility for that opinion. Yet he can take considerable assurance from the situation if his predecessor took no exception to the figures for property, plant, and equipment in expressing his opinion. If the new auditor knows that his predecessor was competent and reliable, only limited tests of plant transactions for previous years should satisfy him that he can accept the opening balances in the plant accounts. But if the previous auditor is unknown to him, or if no previous audit has been made, the examination of previous transactions should be much more extensive. The form of the examination to be made is suggested below. The examination will invariably be on a test basis, but the extent of the tests will be influenced by internal control and the factors just discussed.

Procedures When Client Maintains Plant Ledger. The auditor's work is both simplified and reduced if the client maintains a plant ledger which has recently been adjusted to agree with an inventory of plant assets. The first steps would be, of course, to verify a trial balance of the ledger and to determine that the assets listed were shown to be on hand by the physical inventory. Next a sizeable pro-

portion of the major assets and a representative proportion of the less costly items should be selected for verification. Expenditures should be verified in much the same manner as in a repeat audit, and the accumulated depreciation should be verified. Then, as a supplement to these procedures, the auditor should review all past debits and credits to the various general ledger accounts. Any entries which appear to be unusual in any way should be investigated. Particularly important would be any entries suggesting an appraisal write-up or a major adjustment to past depreciation. All relatively large amounts should be investigated, including entries for the retirement of assets. If any purchases of assets are included which were not covered in the tests based on the plant ledger, these purchases should be verified and carefully studied. Depreciation charges for preceding years should be related to those for the current year, and any material year-to-year variations should be investigated.

Procedures When No Plant Ledger Is Maintained. The absence of a plant ledger suggests that internal control is likely to be limited and must be compensated for by more extensive testing. Furthermore, the auditor will be forced to be less selective in his testing because there is no ledger record showing which assets are still in use. Plant additions will have to be selected at random from the general ledger record. Since many assets acquired years previously may still be in use, additions in the early years will have to be tested almost as extensively as those in later years, even though many of the acquisitions selected may already have been retired. Entries for retirements will have to be given considerably more attention than when there is a plant ledger. The double check on retirements afforded by the plant ledger and a physical inventory will be missing, and must be compensated for by additional audit work. If major amounts of unrecorded retirements exist, the situation must be disclosed and corrected to avoid overstatement of asset and accumulated depreciation figures. Unrecorded retirements may also cause current depreciation charges to be overstated and losses or gains to remain buried in the balance sheet accounts.

Establishment of the Existence of Plant Assets

The auditor's procedures to establish the existence of the recorded plant assets are much less extensive than those pertaining to the existence of current assets or investments. The explanation lies in the factors mentioned at the beginning of this chapter—relative risk and materiality. Typical procedures relating to the verification of the existence of plant assets are suggested in the following sections.

Current Additions. The auditor should physically inspect all major additions recorded during the year and a few of the smaller ones as well. In inspecting the assets he should note whether they bear a reasonable relationship to the recorded description and cost.

Over-all Review. In a general way, the auditor should be satisfied that the physical facilities he has observed in his "get-acquainted" tour of the plant bear out the balances carried in the ledger. He should be able to recognize the difference between a million dollar plant and a hundred thousand dollar plant, but his over-all appraisal can hardly be more precise than that. His main concern should be to detect any obvious overstatement of plant assets.

Branch plants of considerable size will usually be visited every year, and all regular procedures carried out. For smaller units, such as branch sales offices or retail stores, rotating visits over a two- to ten-year period are common. New units, or those having major capital additions, should be visited during the year, if at all possible, to verify the existence of tangible assets in support of book figures. For those branches which are not visited in any one year, sales and expense reports and active bank accounts present useful evidence of the continued existence of assets at those branches.

Small Tools. If small tools are carried as an asset, the account balance will be either an approximate figure which is never changed, or it will be based on an inventory of the tools on hand. In the first instance the auditor need only satisfy himself that small tools do exist in the plant and that the figure used is reasonable. If an inventory is taken, the same procedures employed in the verification of merchandise inventory should be followed, except on a more limited basis.

Returnable Containers. Certain companies, such as beverage and chemical concerns, often have a substantial investment in returnable containers. The existence of containers on hand can be readily verified, but those containers "with the trade" present a considerable problem. Although the asset account may correctly show all containers shipped to customers, there is no assurance that all those containers will be returned. Those which customers have lost, broken, or appropriated for other uses can no longer be shown as an asset and must be written off the books.

To estimate how many containers held by customers are likely to be returned, statistics are usually developed by occasional tests. A cut-off date is selected, and a record maintained of all containers returned after that date which were shipped on or before that date. This record will then show the number of containers with the trade at that date, and the records can be adjusted for those containers which were not returned.

The figure for containers with the trade is directly related to the volume of business being done, and is usually stated as representing X number of days' sales prior to the cut-off date. This figure for the number of days' sales represented in the inventory of containers with the trade varies but slightly from year to year, and consequently an inventory of containers with the trade can be estimated at any time by determining the amount sold in the proper number of days preceding the date for which the figure is desired. Trade associations in industries where this problem is prevalent frequently develop average statistics, thus obviating the need for many companies ever to make such a test.

For the auditor whose client owns returnable containers, the audit procedures to be followed are quite simple. The maximum asset value for containers must not exceed the cost of containers on hand plus those estimated to be with the trade, determined as suggested above. Each of these figures should be independently tested or calculated by the auditor. The auditor should note that accumulated depreciation on containers lost has been removed from the accounts and that any liability for deposits on containers has been adjusted to correspond with the number of containers estimated to be with the trade and to be returned. The net effect of the cost, accumulated depreciation, and deposits pertaining to containers lost will then be the net gain or loss to be recognized on such containers.

Determination of Ownership of Plant Assets and Existence of Liens

The absence of any rental payments is in itself indication that a client must own the plant assets which he is using. Further evidence should be available, however, and examined by the auditor. For real property there should be a deed which has been duly recorded and an abstract of title or a title guarantee policy. Although these are highly technical legal documents, the auditor should at least note that each shows the client to be the legal owner of the property.

Some authors have recommended that the auditor should also examine the public records for actions affecting the client's property, thus further verifying ownership and the absence of any liens. Such an examination is rarely made, however. Adequate alternative evidence of ownership is usually available. If there is a question concerning the client's title to any property, or if there is a possibility that a lien may exist against the property, any search of the public records should be made by a person with legal training. An attempt

by the auditor to make such a search might well result in a wrong conclusion which could be both embarassing and costly to the auditor. There is no acceptable substitute for an attorney's opinion in such matters.

Readily accessible evidence which can be examined to show acquisition and ownership of specific items of property would include contracts, invoices, and paid checks. Tax bills present further evidence of ownership. The bills should be addressed to the client, and the description and location of the property as shown on the bills should agree with the property carried as an asset by the client. Insurance carried on property is also an indication of ownership. Insurance policies should be inspected by the auditor in order to determine that they relate to the assets in question.

Liens. Most property liens will be disclosed through the examination of liabilities, but the auditor should also be alert for evidence of the existence of liens during other phases of his examination. For instance, a purchase contract examined to establish ownership of an asset may prove to be a conditional sales contract with part of the balance still unpaid. The examination of insurance policies may also disclose the existence of a lien. Sometimes such policies must be deposited with the mortgagee to show that his security is adequately protected. Thus the absence of any insurance policies should always suggest the possible existence of a lien. The fact that a policy is on hand and not deposited with someone else is not, however, sufficient basis for concluding that no mortgage lien exists. Careful study of the policy may reveal an endorsement assigning the proceeds of any claims to a mortgagee.

Paid tax bills are sometimes presented to a mortgagee as evidence that taxes have been paid, and the absence of such bills carries much the same significance as missing insurance policies. The paid tax bills should also be examined as evidence that no liens have resulted from unpaid taxes.

Timing of the Examination of Plant Assets

Even in a small business with little or no internal control, part of the examination of plant assets can be made prior to the balance sheet date. Since the major portion of the examination consists of a review of internal control and an analysis of transactions occurring since the previous examination, the work can be started at any time. At the end of the year, then, only transactions occurring since the date of the preliminary work would have to be examined.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of property, plant, and equipment in *Case Studies in Auditing Procedure,* Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Land	$ 13,000
Buildings	75,000
Machinery, equipment, and fixtures	84,000
Accumulated depreciation	60,000
Net book value of plant assets	112,000
Total current assets	453,000
Total assets	565,000

No plant ledger is maintained. Periodically, however, all additions and retirements of plant assets are reported to an appraisal company in connection with fire insurance coverage. The auditor, in connection with his quarterly examinations, prepares depreciation schedules which are the source of the quarterly entries for depreciation. Depreciation rates are set by the auditor in consultation with the plant superintendent.

Each quarter the auditor analyzed the plant accounts. Purchases of new assets were traced to invoices and most large additions were physically inspected. All retirements reported to the appraisal company were investigated to determine that they were properly reflected in the accounting records.

Case B (Loading and Hauling Equipment Manufacturer)

Land	$ 103,000
Buildings	460,000
Machinery and equipment	450,000
Patterns, jigs, etc.	43,000
Shop fixtures	30,000
Small tools	3,000
Automobiles	11,000
Office Equipment	30,000
Accumulated depreciation	257,000
Net book value of plant assets	873,000
Leasehold improvements	30,000
Total current assets	2,491,000
Other assets	44,000
Total assets	3,438,000

A plant ledger is maintained, and based on this record the company writes off all property when it becomes fully depreciated. The factory superintendent notifies the accounting department in writing of all

machinery which is scrapped. The company does not construct any of its own assets. Individual depreciation rates are set on each property item, and the annual depreciation is recorded on the plant ledger sheet.

During the year being examined, the client purchased land and buildings which had formerly been leased. The cost of these assets was traced to the purchase contract, cancelled checks, and the authorization for the purchase in the minutes of the board of directors. Title could not be verified because it had not cleared by the completion of the audit. The plant ledger records for leasehold improvements transferred to building cost were reviewed for indication that they were actually applicable to the building. Items not transferred were reviewed to determine that they were not applicable to the building. The client allocated the purchase cost between land and buildings based on the assessed valuations of each, and this allocation was reviewed by the auditor. No provision was made for depreciation on buildings, and no decision on the estimated life of the building had been reached prior to the completion of the audit.

Of the $150,000 additions to machinery and equipment during the year, all items in excess of $100 were listed and traced to supporting invoices. Credits to machinery and equipment amounting to about $50,000 represented the cost of fully depreciated items. These items were verified against the property ledger. Machinery costing about $13,000 was scrapped during the year. The items included in this write-off were compared with the file of notices about scrapped machinery received from the factory superintendent. The loss on such items was verified by comparing the cost and accumulated depreciation on each item with the plant ledger record of those amounts. Fifty per cent of the individual depreciation provisions for the year as shown by the plant ledger were verified, and the remainder were scanned. Cost and depreciation balances were then tape-listed and the totals compared with the general ledger accounts.

Transactions affecting patterns, dies, jigs, and the related depreciation accounts were verified in the same manner as machinery and equipment. Since depreciation was taken at a rate of 25 per cent, all patterns, dies, and jigs acquired four years previously were retired on the basis of being fully depreciated. An exception involved certain dies acquired to produce a specified number of units under a special contract. These were depreciated on the basis of units produced, and the figures affecting the calculation of depreciation were traced to the purchase contract (to determine total units to be produced) and to the cost records (to determine the number of units produced). The depreciation computation was then verified.

Shop fixtures, small tools, and office equipment were also verified in the same manner as machinery and equipment. The following depreciation rates were applied:

	Per Cent
Shop fixtures	8
Small tools	50
Office equipment	6 2/3

Only one automobile was purchased during the year, and its cost was traced to the paid invoice. Depreciation was based on miles driven, and mileage figures were traced to salesmen's monthly reports.

Leasehold improvements made during the year were traced to invoices. The client's provision for amortization, based on the remaining life of the lease, was verified by testing the individual computations.

Depreciation and amortization rates for tax purposes were identical with those used in the records. Since the rates had been approved by the Internal Revenue Service, the rates were assumed by the auditor to be adequate. Total depreciation for the year as shown by the author's analysis of accumulated depreciation accounts was reconciled with the amount of depreciation expense included in the income statement.

Analyses were prepared of entries to repair and maintenance accounts as a means of detecting expenditures which should have been capitalized. Items over $100 were traced to paid invoices. Certain items considered by the auditor to be capital charges were brought to the attention of the controller, who prepared correcting journal entries.

The above verification required 8 per cent of the total audit time.

Case C (Department Store)

Fixed Assets, at cost less depreciation	
Land and buildings	$ 700,000
Store fixtures and equipment	400,000
Delivery equipment	50,000
Total current assets	4,300,000
Total assets	5,600,000

General ledger accounts are maintained for land, buildings, escalators, and three different groups of store fixtures. The store fixtures are classified by group according to their estimated life. There is no detailed plant ledger, but analyses are maintained showing the total additions to fixed assets by years. Depreciation is based on composite rates and is figured at half the annual rate on additions during the current year. Retirements, unless of a major nature, are not recorded, but all assets are written off against the accumulated depreciation in the year they become fully depreciated. All expenditures of less than $50 are charged to expense, regardless of the estimated service life of the asset acquired.

The client prepared for the auditor a schedule of additions to each asset account during the year. Major additions were physically inspected, if practicable. All charges for larger additions were traced to vouchers and invoices or other supporting data. Charges to the store fixtures accounts

were reviewed to determine that they were properly classified according to whether their estimated life was five, ten, or twenty years.

Considerable attention was given to whether the client had maintained a satisfactory distinction between capital and expense charges. Additions were scrutinized to ascertain that no repair or maintenance jobs were capitalized merely because they were substantial in amount, as, for instance, entirely repainting the walls and fixtures in a given department or area. On the other hand, expense charges were studied for possible charges which should have been capitalized, as, for example, the cost of completely remodeling and rearranging a department. Even though many of the old fixtures might be re-used in such a case, if the intention was to improve the department over its original condition and not simply to restore the original appearance by repainting, the cost should be capitalized and not expensed.

To complete the picture pertaining to the maintenance of a proper distinction between expenditures which should be capitalized and those which should be expensed, the auditor had the client prepare a schedule of all maintenance and repair material and labor accounts. Charges were totaled by months, and invoices in excess of $150 were listed individually. Invoices were examined in support of the larger items, and unusual fluctuations in the total charges from month to month were investigated.

It developed, however, that the above schedule did not give the auditor a clear picture of the work which had actually been done, since charges were not identified as to the project to which they applied. This problem was solved when it was discovered that the client maintained a memorandum record of all maintenance work orders and the charges thereto. Although this record was not tied in with the general ledger, the auditor found that the total charges shown in the record were within 5 per cent of the total maintenance and repair expense for the year and concluded that the record was sufficiently reliable for audit purposes. The work orders listed in the memorandum record were then reviewed with the superintendent of maintenance and the controller. Based on discussion with these officials and inspection of the major projects, the auditor was able to form an opinion as to the propriety of the accounting treatment which these charges were given in the accounts.

As to depreciation, the auditor evaluated the adequacy of the rates established in prior years by considering the estimated life of the assets acquired, the length of leases, obsolescence, the use to which assets were placed, and the general state of repair of the assets. The calculations for depreciation for the current year were then verified, and the additions to the accumulated depreciation accounts were reconciled with charges to profit and loss.

Inquiry and investigation was made to determine whether any major retirements had been made which were not reflected in the records.

Machine Products Co. UV

Property and accumulated Depreciation

J.A.S. 1/15/57

12/31/56

Asset accounts - Per Books

Description	Balance 12/31/55	Additions U-1	Retirements U-3	Balance 12/31/56	
Land	41 36289	—	—	41 36289	M
Buildings	6892375	51 49658	—	740 73409	M
Machinery + Equipment Factory	615 95863	38219 46	3 92651	650 25158	M
Office	23 64218	4 92651	2 36841	26 20028	M
	1370 20121	94 64255	6 29492	1458 54884	

Accumulated Depreciation - Per Books

	Balance 12/31/55	Provision U-1	Retirements U-3	Balance 12/31/56	
Buildings	206 77125	14 81468		221 58593	M
Machinery + Equipment Factory	321 41689	58 11542	3 55834	375 97397	M
Office	7 35174	1 96973	2 01493	7 30654	M
	535 53988	74 89983	5 57327	604 86644	

M Examined trial balance tape, and tested 5% of items against plant ledger records.

	Adjustments and Reclassifications Dr	Cr	Final 12/31/58
			41 36289
(3)	5 72184		746 45593
(4)	5 19247		645 05911
			26 20028
			1459 07821
(5)	457 75		221 12818
(4)	5 19247		370 78150
			7 30654
			599 21622

Machine Products Co.
Additions to Plant Assets

J.A.S. 1/15/57

12/31/56

Date	Ref	Description	Vendor	amount
Buildings				
8/24	VR192	New office wing added to existing factory bldg. Ⓔ	Kaw Builders, Inc. Ⓕ	51496.58 Ⓛ
				to UV
Factory machinery & equipment				
3/8	VR123	2 National automatic screw machines Ⓔ	National Mchy Co. ✓	31241.50 ✓
3/15	VR125	Freight on above machines	Trippe Trucking Co. ✓	65.93 ✓
3/21	VR126	Installation of above machines	Heavy Movers, Inc. ✓	95.80 ✓
7/10	J 56	3-14" engine lathes Ⓔ	Made in company plant	4893.60
			Material 495.19+	
			Labor 516.37+	
			Overhead (120%) 619.64	
			Total 1631.20	
			3 @ $1,631.20 4893.60	
		Total other items, all under $300		1922.63
				38219.46
				to UV
Office machinery & equipment				
4/21	VR130	Burroughs bookkeeping mach. Ⓔ	Burroughs Corp. ✓	2575.33 ✓
9/10	VR198	10 desks and swivel chairs Ⓔ	Office Supply Co. ✓	2351.18 ✓
				4926.51
				to UV

Per discussion with controller and plant superintendent, all of the above items represent additional facilities with the exception that one of the National automatics replaces an old Handley automatic which was scrapped. Retirement of the Handley not recorded, corrected by Adjusting Entry ④. Old Burroughs bookkeeping machine was traded in on above machine. Retirement recorded, see U-3.

Ⓛ Examined contract. Total contract price shown is $57,218.42, to be paid on completion of building, less 10% to be withheld until building is proven to be satisfactory. The amount withheld has not yet been paid because asphalt tile floors have been unsatisfactory. Contractor is now in process of laying new floors. The amount withheld should be shown as a liability - see Adj. Entry ③. Contract authorized by board of directors, per minutes in last year's W/P.

✓ Paid check examined
4 Invoice examined
+ Traced to standard cost records
Ⓔ Inspected the described asset

U-2

Machine Products Co.
Review of Maintenance and Repair Expense

J.A.S
1/16/57

12/31/56

	Totals per ledger	
	Repair Expense	Maintenance Expense
January	2 541 29	1 226 38
February	2 360 18	1 295 19
March	2 419 32	1 270 15
April	① 3 237 85	1 315 23
May	2 506 31	1 250 89
June	2 123 78	1 195 40
July	2 436 51	1 220 76
August	2 661 22	1 240 89
September	2 480 31	② 2 438 21
October	2 515 65	1 263 61
November	2 425 97	1 250 87
December	2 360 91	1 286 49
	30 068 30	16 254 07
	Per 20-2	Per 20-2

The monthly totals of the above accounts were scheduled to show any possibility that expenditures which should have been capitalized were charged as expense. Only two amounts appeared out of line, and our inquiry revealed the following information:

① Two Titanic Presses were overhauled and restored to peak operating condition. Examined invoice for $1,738.00 from Titanic Mfg. Co. covering this work.

② Maintenance employees worked considerable overtime during this month and were assisted by some additional shop employees in preparing the new office wing for occupancy and moving office equipment to the new area.

Machine Products Co.
Analysis of Property Retirements and Sales

J.A.S.
1/16/57

12/31/56

Description	Year Purchased	Cost	Depreciation Rate	Accumulated Depreciation to 12/31/56
Factory machy + equipment				
Ajax centerless grinder	1950 u	528 19 u	10 %	316 92 u ✓
Mesta milling machine	1941 u	1 829 37 u	10 %	1 829 37 u ✓
Drillco multiple spindle drill	1947 u	1 568 95 u	10 %	1 412 05 u ✓
Total		3 926 51		3 558 34
		to UV		to UV
Office machy + equipment				
Burroughs bookkeeping machine	1946 u	1 863 85 u	8⅓ %	1 552 60 u ✓
7-4 drawer wooden file cabinets	1945 u	504 56 u	8⅓ %	462 33 u ✓
		2 368 41		2 014 93
		to UV		to UV
				Net loss

① Traced to cash receipts record
② Traced to trade-in allowance as shown by invoice for purchase of new machine

u Per detailed plant ledger
✓ Computed calculation of accumulated depreciation, based on company policy of taking ½ year depreciation in year of purchase and year of sale

Proceeds of Sale	Gain or (Loss)
①	
150 00	(61 27)
—	—
—	(156 90)
150 00	(218 17)
②	
500 00	188 75
—	(42 23)
500 00	146 52
retirements	(71 65)
	20 50

Machine Products Co.
Provision for Depreciation

JA
1/17/

12/31/56

		Machinery & Equipment	
	Buildings	Factory	Office
Asset balance 12/31/55, per UV	689 237 51	615 958 63	23 642 18
Add ½ additions for 1956, per U4	28 609 21	19 109 73	2 463 26
	717 846 72	635 068 36	26 105 44
Deduct ½ retirements for 1956 which were not fully depr. per U-3	—	① 1 048 57	1 184 21
	717 846 72	634 019 79	24 921 23
Deduct cost of fully depr. assets per client's tape of plant ledger	—	53 046 19	1 256 93
Amount subject to depreciation	717 846 72	580 973 60	23 664 30
Depreciation rates	2%	10%	8⅓%
Depreciation expense per audit	14 356 93	58 097 36	1 971 24
Depreciation expense per books	③ 14 814 68	per 20-2 58 115 42	③ 1 969 73
Books over (under) audit	② 457 75	18 06	(1 51)
	Adj. J.E ⑤	Pass J.A.S.	Pass J.A.S.

Client takes unit depreciation on each item as shown by the plant ledger. Depreciation on additions and retirements is figured at ½ annual rate.

① Retirements per V-3 3 926 51
Less fully depr. machine assets subject to depr. 1 829 37
2 097 14
½ thereof 1 048 57

② Client figured depreciation on entire ending balance, after addition of $51,496.58. Per adj. entry ③, total cost of addition should be $57,218.42, and only ½ year depreciation should be taken, as shown above.

③ Tie-in with P & L

Depreciation expense-			Building	Office Equip.
Factory overhead	20-2	90%	13 333 21	—
Gen. & Admin.	30	7%	1 037 03	70% 1 378 81
Selling	30	3%	444 44	30% 590 92
As above			14 814 68	1 969 73

Review Questions

1. What factors simplify the verification of property, plant, and equipment, as compared with the verification of current assets?

2. How should capital expenditures be reported to give management maximum information for use in controlling such expenditures?

3. What are the functions of a detailed plant ledger?

4. How can information on the amount of accumulated depreciation be useful to the the user of financial statements?

5. What classification problems exist in properly showing plant assets in the balance sheet?

6. How does the usual examination of property, plant, and equipment differ from the examination of current assets?

7. What are the auditor's objectives in the examination of plant assets?

8. Does the auditor customarily attempt to prove the accuracy of the client's trial balance of the plant ledger? Explain.

9. How does the auditor proceed in verifying additions to plant assets?

10. In what way does relative risk affect the auditor's verification work pertaining to the maintenance of proper distinction between capital and revenue charges?

11. What figures should be verified in connection with major retirements of plant assets recorded during the year?

12. Under a good system of internal control, how can a company guard against unrecorded retirements of plant assets?

13. What procedures can the auditor employ to discover retirements which have not been recorded?

14. What is the auditor's responsibility with respect to a client's depreciation figures?

15. How is an auditor's initial examination simplified if the client maintains a plant ledger?

16. What procedures does the auditor follow in establishing the existence of plant assets?

17. If returnable containers are lost by a customer, what accounts will be affected, assuming the customer paid a deposit on the containers and the containers are estimated to have a life of four years?

18. List items of evidence which the auditor can examine in support of the client's ownership of property, plant, and equipment carried on the balance sheet.

19. What possible significance should the auditor attach to the fact that a fire insurance policy is not on hand?

Questions on Application of Auditing Standards

20. To what extent should the auditor be concerned, in an initial audit, with depreciation provided in prior years?

21. How would you verify the account "Net loss on disposal of plant assets"?

22. What audit procedures would you apply in examining an account titled "Construction Work Orders in Progress"?

23. What types of items might be found in the account "Construction Work Orders in Progress" that might call for adjusting entries?

24. The football stadium at a midwestern university was built as a war memorial, from the gifts of students, alumni, and friends of the university. Title is held by the Athletic Association, and since the structure had no cost to the Association, no depreciation was charged. If you were engaged for an examination of financial statements of the Association, would you be willing to give an unqualified opinion under the circumstances, or would you insist that depreciation be recorded before you would be willing to give an unqualified opinion? Justify your position.

25. Many banks depreciate their physical facilities at a rapid rate, and it is not uncommon to find a bank balance sheet on which the banking facilities are listed at a value of $1. Would you expect to be able to give an unqualified opinion in such a case? Explain.

26. The general rule has been stated that there are very few cases in which overhead should be capitalized when plant is constructed by a business for its own use. Would this rule apply in the case of an automobile manufacturer who takes automobiles from the assembly line and uses them for business purposes? Explain.

Problems

27. The Vorta Corp. purchased a new milling machine on January 1, 1955, to be paid for in ten installments, due on January 1 of each year including the year of purchase. The machine is estimated to have a life of twenty years. The annual payments were calculated as follows:

List price of machine	$ 9,000
Interest	1,000
Total	$10,000
Annual installments (10)	$ 1,000

The Vorta Corp. has made no entries for the purchase of the machine and has followed the practice of charging the annual payments as rent expense.

Prepare any adjusting entries you would make in connection with a first audit as of December 31, 1956.

28. The following property account is shown on the books of the X Company:

Balance at December 31, 1955			$586,000.00
Additions—			
Feb. 28	Transfer from construction work in progress—building completed	$100,000.00	
Feb. 28	Removal of old warehouse to make room for new structure	15,000.00	
June 30	1956 taxes on real estate (Valuation: land $50,000, building $100,000; rate $3.00 per $100)	4,500.00	
July 31	Legal and out-of-pocket expenses re title search of property not acquired	200.00	

Oct. 31	Purchase of two machines, including freight $78.20 and installation $100	1,078.20	
Oct. 31	Cost of removing used machines replaced by above purchase	45.00	
Nov. 30	Cost of moving the two machines to 3rd floor to effect more economical operation	71.80	120,895.00
			$706,895.00
Credits			
Mar. 31	Sale of old building materials		200.00
Balance at December 31, 1956			$706,695.00

What adjustments would you suggest and why? What action would you take if the company refused to adopt your suggestions in preparing a balance sheet for certification? (A.I.A.)

29. The Zeno Company maintains no detailed plant ledger. It estimates a ten-year life on all machinery used, and provides depreciation each year at 10 per cent of the year-end balance of the machinery account. In connection with a first audit of the company as of December 31, 1956, you are instructed to prepare a schedule showing your calculation of the corrected balance of the machinery account and the accompanying accumulated depreciation account. Depreciation is to be calculated on the ten-year life used by the company, but on a unit basis. You are also to prepare any adjusting entries necessary at the balance sheet date, handling any corrections of the prior years' income through retained earnings. The accounts affected are shown below:

	Machinery	*Dr.*	*Cr.*	*Balance*
Jan. 1, 1945	Machines No. 1—No. 5 purchased at $5,000 each	$25,000		$25,000
	Freight on above machines	500		25,500
	Installation costs	1,500		27,000
Jan. 1, 1950	Machines No. 6—No. 8 purchased at installed cost of $7,000 each, less allowance on machine Nos. 1, 3, 5 traded in	15,000		42,000
Jan. 1, 1955	Special attachments purchased for machines No. 6—No. 8	3,000		45,000
Jan. 1, 1956	Machines No. 9 and No. 10 purchased, including special attachments	18,000		63,000
Jan. 1, 1956	Machine No. 2 sold for cash		$500	62,500

	Accumulated Depreciation		
Dec. 31, 1945	1945 depreciation expense	$2,700	$2,700
Dec. 31, 1946	1946 depreciation expense	2,700	5,400
Dec. 31, 1947	1947 depreciation expense	2,700	8,100
Dec. 31, 1948	1948 depreciation expense	2,700	10,800
Dec. 31, 1949	1949 depreciation expense	2,700	13,500
Dec. 31, 1950	1950 depreciation expense	4,200	17,700
Dec. 31, 1951	1951 depreciation expense	4,200	21,900
Dec. 31, 1952	1952 depreciation expense	4,200	26,100
Dec. 31, 1953	1953 depreciation expense	4,200	30,300
Dec. 31, 1954	1954 depreciation expense	4,200	34,500
Dec. 31, 1955	1955 depreciation expense	4,500	39,000
Dec. 31, 1956	1956 depreciation expense	6,250	45,250

30. In connection with a first examination of the Soda Pop Company as of December 31, you have obtained the following information:

Balances, December 31	
Bottles	$ 3,122.51
Cases	3,617.00
Accumulated depreciation—cases	1,827.82
Deposits	3,931.75
Sales, December	4,187.20
Sales, year to date	88,629.18
Depreciation on cases	904.25

A physical inventory of cases and bottles on hand at December 31 was as follows:

Cases	1,923
Bottles	46,152

Cases are to be depreciated at the rate of 25 per cent per year, with depreciation charged for one-half year for cases purchased during the year and one-half year for cases lost or destroyed during the year. Cases costing $419 were purchased during the year.

Deposits are charged as follows:	
Case	$0.27
Bottles (24 per case @ $0.02 per bottle)	0.48
Total deposit, full case	$0.75

Average costs:

Bottles	$1.75 per 100
Cases	0.50 each

Selling price of Pop—$0.80 per case

Through the trade association for the carbonated beverage industry you are able to ascertain that companies, on the average, find that the inventory of containers with the trade at any one time which will be returned for deposit refund amounts to about twenty-one days' sales (based on twenty-four business days per month).

Prepare a work sheet for your examination of the above accounts, showing any adjusting entries you would recommend.

31. From the information presented below, prepare a complete set of working papers, including a summary of transactions for the year, to cover your examination of office furniture and fixtures and the related depreciation account for an examination for the year ended December 31, 1956. Your working papers should evidence all phases of your examination, which should be complete in every respect, and should present any adjusting entries you would suggest. You had previously made a similar examination of the financial statements of the Sandra Corp. for the preceding year.

The company provides depreciation on a unit basis at ten per cent per year. Depreciation is figured at the end of the year on assets owned at that time.

General Ledger Accounts
Office Furniture and Equipment

1956					
Jan. 1	Balance forward				$31,066.50
Feb. 28		VR	$2,864.21		33,930.71
Apr. 30		VR	417.60		34,348.31
30		J4-3		$206.41	34,141.90
July 31		VR	73.91		34,215.81
Aug. 31		VR	66.18		34,281.99
Oct. 31		VR	1,198.50		35,480.49
31		J10-2		376.27	35,104.22
Nov. 30		CR10		125.00	34,979.22
30		VR	242.50		35,221.72
30		J11-4	150.00		35,371.72
30		J11-4		306.20	35,065.52
Dec. 31		VR	68.32		35,133.84
31		J12-6		68.32	35,065.52

Accumulated Depreciation—Office Furniture and Equipment

1956					
Jan. 1	Balance forward				$15,978.02
Apr. 30		J4-3	$206.41		15,771.61
Oct. 31		J10-2	501.27		15,270.34
Nov. 30		J11-4	244.96		15,025.38
Dec. 31		J12-8		$2,897.28	17,922.66

General Journal Entries

J 4-3

Accumulated depreciation—office furniture and equipment	$ 206.41	
Office furniture and equipment		$ 206.41
To write off 3 filing cases, purchased 1942, no salvage value.		

J 10-2

Accumulated depreciation—office furniture and equipment	$ 501.27	
Office furniture and equipment		$ 376.27
Net gain or loss on disposition of assets		125.00
Sale of 3 desks and chairs, purchased 1945, cost $501.27, less cash received on sale $125 (CR 10).		

J 11-4

Office furniture and equipment	$ 150.00	
Accumulated depreciation—office furniture and equipment	244.96	
Office furniture and equipment		$ 306.20
Net gain or loss on disposition of assets		88.76
To record trade-in of adding machine purchased 1948, cost $306.20, depreciation to 12/31/55, $244.96. Debit of $150 is to show debits equal to full cost of new machine and covers trade-in which was netted in VR entry.		

J 12-6

Factory furniture and equipment	$ 68.32	
Office furniture and equipment		$ 68.32
To transfer cost of forms registers erroneously charged to office furniture and equipment.		

J 12-8

Depreciation expense—office furniture and equipment ..	$2,897.28	
Accumulated depreciation—office furniture and equipment		$2,897.28

Depreciation for 1956, see work sheet in controller's file.

Voucher Register Entries

Invoice Date	*VR Entry Date*	*Vendor*	*Description*	*Amount*
2/23/56	2/28	Remington-Rand	Bookkeeping machine cost $3,164.21, less trade-in of $300.00 on machine purchased 1949, at cost of $2,026.52	$2,864.21
4/18/56	4/21	Office Supply Co.	4 letter-size steel filing cases—f.o.b. factory	386.42
4/23/56	4/28	Arrow Freight Co.	Freight on filing cases	31.18
7/5/56	7/8	Eldon Electric Co.	3 16-inch oscillating fans	73.91
8/12/56	8/14	Office Supply Co.	Replace plattens, ribbons, clean and service 8 Royal typewriters	66.18
9/28/56	10/1	Office Supply Co.	3 Art Metal steel desks and chairs—f.o.b. destination	734.52
10/1/56	10/3	Friden Calc. Machine Co.	Friden calculator	421.83
10/2/56	10/5	Arrow Freight Co.	Freight on desks	42.15
11/15/56	11/18	Burroughs Adding Machine Co.	8-bank adding machine cost $392.50 less trade-in, $150.00	242.50
12/3/56	12/5	Office Supply Co.	3 forms register machines	68.32

Schedule of Acquisitions and Retirements
December 31, 1955

Year	*Cost*	
	Acquisitions	*Retirements*
1927 to 1943	$34,851.27	$29,261.35
1944	3,247.51	3,247.51
1945	4,368.25	3,124.65
1946	1,115.81	924.39
1947	851.32	851.32
1948	1,001.36	423.65
1949	3,751.23	1,306.35
1950	4,401.73	1,451.23
1951	2,256.39	—
1952	3,124.56	308.51
1953	5,589.63	419.19
1954	4,208.81	—
1955	3,616.78	—
	$72,384.65	$41,318.15
	41,318.15	
Assets in use December 31, 1955	$31,066.50	

Retirements are grouped according to the year the asset was acquired. The year in which the retirement occurred is not indicated.

32. In the course of a regular annual audit of the Bean Manufacturing Corporation you are assigned to the audit of machinery and equipment. A transcript of the ledger account appears below:

Machinery and Equipment-Acct. 83

Jan. 1, 1956 Balance	$209,628.12	Apr. 25, 1956 CR 12	$75.00
Apr. 18, 1956 VR 23	31,994.45		
July 28, 1956 J 8	6,681.81		
Sept. 9, 1956 VR 41	14,189.00		
Nov. 11, 1956 VR 52	7,261.88		

You have examined the invoices for September 9 and November 11 and have no questions as to them. In support of the entry of April 18, 1956, you find an invoice which is reproduced below. In support of the entry of July 28, 1956, you find a journal voucher which is also reproduced.

Required:

After applying usual auditing procedures to the information available, state the adjustments of the Machinery and Equipment account or questions for further investigation which are suggested by the ledger transcript and supporting documents. Describe the nature of each adjustment or item questioned, and state how it was indicated. Dollar amounts of adjustments are not required.

STAINWELL TOOL MANUFACTURING CO.

Phone 5-7444 — 518 West Boulevard, Martinville, Illinois — Date: Apr. 15, 1956; *Inv. No.:* 22608

MAKER OF FINE TOOLS SINCE 1908

DR Bean Mfg. Co., Inc.
77 Newton Street
Hamilton, New Jersey

Your *Order No.:* X3129
Ship via rail freight FOB Chicago
Terms: 2/10; N 30

2 Model A 24			
Heavy duty Stainwell torque press	@	$15,672.00	
2 Converter A24b	@	269.65	
2 Safety bar A24p	@	44.60	$31,972.50
. Model A21 parts			
1 Catalog #618	@	18.10	18.10
1 Catalog #751	@	1.85	1.85
3 Catalog #812	@	2.00	2.00
			$31,994.45

Rec'd 4-16-56 By AA HH
P. O. Checked @ BH
Calc. Checked @ MHB
Pay. Author. 4923
Pd. 4-24-56 Ck# 83
VR 23-12 Acct.

Journal Voucher 52-7-8
Construction of Conveyor

Machinery and equipment		$6,681.81	
Drafting department salaries			$ 198.00
Repair department wages			611.95
Factory direct labor			386.60
Purchases			5,485.26
To record cost of conveyor as follows:			
John Redfield, draftsman, 43 hours @ $2		$ 86.00	
Wm. White, draftsman, 56 hours @ $2		112.00	
		$ 198.00	
Repairmen assigned to construction:			
D. Baker	94 regular hours @ $2.12	$ 199.28	
	42 overtime hours @ $3.18	133.56	
E. Miller	71 regular hours @ $2.26	160.46	
	35 overtime hours @ $3.39	118.65	
		$ 611.95	
Factory workers assigned to construction:			
R. Fischer	94 regular hours @ $1.20	$ 112.80	
	35 overtime hours @ $2.30	80.50	
J. Smith	94 regular hours @ $1.20	112.80	
	35 overtime hours @ $2.30	80.50	
		$ 386.60	
Purchases	VR 34-18	$ 921.85	
	VR 35- 4	2,876.50	
	VR 35-13	235.42	
	VR 35-37	689.17	
	VR 36-11	319.40	
	VR 36-22	442.92	
		$5,485.26	

(A.I.A.)

33. Below will be found copy of a section of the Equipment Account of the Perfection Printing Company. It has been written up by a clerk known to you to be not only inaccurate but also deficient as to accounting theory and practice.

You are required to scrutinize the entries for the six months' period to June 30th. You should

(*a*) Prepare adjusting journal entries and make suggestions for whatever other corrections may be required.

(*b*) State the corrected balance of the equipment account at June 30, assuming the balance at January 1st to have been correct.

Notes:

(*a*) Your clients have been engaged in war work and have already taken certain steps toward reconversion, to meet the cost of which they have accumulated a substantial reserve.

(*b*) Entry of February 10th—Monotype machine cost $4,000; depreciation accrued to date of sale $3,000.

(*c*) Entry of March 3rd—Cost of this motor $90; depreciation accrued to date of sale $45; an amount of $15 for which this piece of equipment was sold on March 3rd was credited (direct from cash book) to other income.

(*d*) Entry of April 2nd—Purchase will enable the company to print in a new style of type.

(*e*) Entry of May 17th—Cost of the shelving was $160 against which depreciation of $40 had been accrued to date of sale. Sold for $15 cash.

(*f*) Entry of June 8th—Cost of the old shop lights was $400; depreciation accumulated to date of sale $220; sold for $65 cash out of which $13 commission was paid.

(*g*) Entry of June 15th—According to the engineer's bill, the $1,000 charge covered a survey and preparation of a report on a proposed new shop lay-out occasioned by the discontinuance of war work and return to production of civilian merchandise.

(*h*) Entry of June 30th—The amount of $3,600 is an estimate of the loss of profit occasioned by closing during the period covered by the engineering survey above referred to. Corresponding credit was made direct to profit and loss account.

Perfection Printing Co., Inc.
Equipment Account

Date		*Ref.*	*Debit*	*Credit*
Jan. 1	Balance forward		$738,900	
25	Kelly Press #K-10	VR 12	2,500	
25	Kelly Press—freight	CB 95	130	
30	Kelly Press—installation	VR 25	200	
Feb. 10	Sale of monotype machine	CB 98		$1,300
12	Second-hand high-speed cutter	VR 30	1,350	
19	Depreciation on monotype sold February 10th	J 75		3,000
25	Reversal of February 19th entry	J 76	3,000	
27	Betterments—hand feed press #3	VR 39	100	
27	Betterments—hand feed press #3	PR 67	50	
Mar. 3	Loss on sale of 2 HP motor	J 78	30	
5	Reversal of March 3rd entry	J 78		30
5	Westinghouse 2½ HP motor	VR 44	115	
14	Sorter—repairs	CB 105	60	
Apr. 1	Graphite lubricating service	VR 46	85	
2	New sets of O E type (brass)	VR 46	370	
9	Cases of black and green ink	VR 47	150	
15	Sundry equipment purchased at auction	CB 113	900	
15	Agent's commission on above purchases	CB 114	90	
16	Agent's expenses on above purchases	PC 49	10	
May 4	Painting 3 old presses	PR 90	12	
9	Metal shelves for paper stock	VR 52	340	
17	Sale of lumber from old shelves	CB 130	15	15
17	Profit and loss on sale of equipment—loss on sale of old shelves	J 81		105
30	Wiring for new shop lights	VR 56	160	
31	Fluorescent fixtures complete with tubes	VR 57	500	
June 8	Sale of old shop lights	CB 134		65
8	Commission on sale of old lights	CB 135	13	
15	Engineer's fee (reconversion survey)	CB 141	1,000	
30	Estimated loss in production during period of reconversion survey	J 84	3,600	
			$753,650	$1,500

(A.I.A.)

11 · Other Assets

This final chapter pertaining to the examination of assets covers three remaining groups of assets—prepaid expenses, deferred charges, and intangibles. Included are prepayments of such items as insurance, taxes, rent, postage, interest, advertising, and commissions. Other items included are expense advances, supplies, deposits, bond discount, plant rearrangement costs, leaseholds, leasehold improvements, organization costs, goodwill, patents, copyrights, trademarks, and franchises. The brevity of the chapter, in spite of the number of items covered, reflects the tendency of such items to be of minor significance on the balance sheet, and also the usual simplicity of the auditing problems in connection with their verification. The length of the chapter is consequently somewhat in proportion to the amount of audit time consumed by the examination of these assets in most cases.

INTERNAL CONTROL

Most of the techniques of attaining adequate internal control over this final group of assets have already been mentioned in earlier chapters. Among those which have particular applicability to these other assets are the authorization and approval of expenditures and the maintenance of adequate accounting records to assure proper accounting for the resulting asset costs and their disposition. Additional considerations pertaining to a few of these assets are presented below.

Prepaid Insurance. Authorization of expenditures for insurance involves the broader problem of insurance coverage. Each time a policy is renewed, and sometimes oftener, a company's insurable risks should be reviewed to determine whether there has been any change which would warrant adding or eliminating insurance on some of

these risks. For those risks for which it is decided to continue insuring, conditions should be studied to determine whether there has been any change in the amount of the insurable risk. Under-insurance forces the company to become partially self-insured in contradistinction to the presumed intention to transfer all such risks to insurance companies. Over-insurance, on the other hand, entails a needless waste of company resources.

A properly designed insurance register should be helpful in summarizing the information on existing insurance coverage for such over-all appraisals as suggested above. It should also provide the data for the monthly or annual journal entry to record expired insurance as an expense. The balances of unexpired insurance premiums then become the supporting details for the general ledger account for unexpired insurance.

Supplies. The responsibilities for the purchasing of supplies and maintaining adequate quantities on hand are similar to those pertaining to regular inventory items, and should be treated in much the same way. Companies vary widely, however, with respect to accounting for the supplies and controlling the issuance of supplies. Some companies follow all the procedures used in controlling the regular merchandise or materials inventories. Such control tends to be necessary if supplies are a significant item in company operations, and if supplies used are charged to various departmental accounts.

Other companies omit maintaining the general ledger records on a perpetual basis but keep detailed records of quantities to aid in purchasing and to establish control over supplies in the storeroom. A physical inventory is then taken at the end of the year to determine the allocation of the balance of the supplies account into asset and expense portions. Perhaps the most common treatment, however, is to maintain no control over the supplies after they are purchased, and to charge all purchases directly to expense. In such cases the cost of supplies used should not be a material item, and if this is true the failure to account for fluctuations in year-end supply inventories will not have a significant effect on either the results of operations or on financial position.

Expense Advances. The control over expense advances for travel or other purposes should be similar to the control over imprest fund operations. The original advances should be duly authorized, and the expenditures which are subsequently reported should be audited in the same manner as any cash disbursement. Unexpended balances may be allowed to stand charged against the individual if additional expenses will be incurred in the near future. Otherwise, the balance

of the advance should be refunded to the company and the individual's account closed out.

Postage. Internal control over postage has been strengthened greatly by the increasing use of postage meters. There is then less opportunity for dishonest employees to divert to personal use funds intended for the purchase of stamps. More important, the loss of stamps by theft or misappropriation is precluded. Further advantages of the use of postage machines are reductions in the cost of sealing and stamping envelopes and a more convenient means of determining departmental charges when such allocations are made. Reading the registering dials before and after stamping a given batch of mail and making a simple subtraction tell the exact amount of postage used.

Internal Reports

Most of the items in the "Other assets" group are not of sufficient importance to warrant the preparation of separate reports. Insurance is a possible exception, since top management should get periodic reports to serve as a basis for evaluating the adequacy of the company's insurance coverage. In the absence of regular reports, some responsible officer, such as the controller, should regularly review the balances of the other asset accounts to determine that they have not become a dumping place for items that do not belong there.

Internal Auditing

The internal auditor's main concerns should be to see that expenditures chargeable to other asset accounts have been properly authorized, that they represent justifiable expenditures of company funds, and that the charges have been properly accounted for. Decisions implied in the expenditure of such funds are thus within the internal auditor's province, and would cover such matters as the adequacy of the insurance coverage obtained and the reasonableness of the quantities of supplies kept on hand.

STANDARDS OF STATEMENT PRESENTATION

Those assets of the prepaid expense variety are now recognized as being appropriately classified as current assets. Most of these will not extend beyond one year, or beyond the period of the operating cycle if it is longer than one year, and as a consequence are closely related to current operations and the working capital picture. Businesses

with short operating cycles will nevertheless frequently have some prepayments which will extend beyond one year, such as the premium on a three- or five-year insurance policy. If the amounts involved are significant they should be shown under a noncurrent classification, but they will be minor in most cases, and can therefore be properly included in the current section with the prepayments for one year or less.

Prepaid expenses are usually grouped together and shown as a single item, but if any items are sufficiently large to attain individual significance, they should be listed separately. Since there is hardly any basis for valuing prepayments at a figure other than cost, such a basis of valuation is usually understood and need not be set forth in the statements.

Deferred charges are much like prepaid expenses, but they usually cover longer periods of time and thus are not to be included in the current asset classification. The use of a separate classification for deferred charges is seldom warranted, and they are therefore frequently listed under the heading of "Other assets." The item of unamortized bond discount may be shown as a deduction from the liability for bonds payable.

Intangible assets are frequently the least liquid of assets, and as a result they will usually be the last item on the balance sheet if the amount is sufficiently material to warrant a separate classification. Since intangibles are sometimes stated at figures other than cost, even though cost is the only acceptable basis of valuation, the basis of valuation used should always be stated. Also, since there is no uniformity on the matter of amortizing certain intangibles, those intangibles which are being amortized should be so described. A typical description would be "Goodwill—at cost less amortization."

VERIFICATION OF STATEMENT AMOUNT

In cases where internal control is adequate and only minor amounts are involved, the auditor's sole objectives may be to satisfy himself that recorded amounts are reasonable and that they are in line with the corresponding asset and expense figures for the preceding year. If further verification is warranted, the auditor's objectives should be

1. To establish the propriety and validity of the amounts originally debited to the asset accounts.
2. To determine that future periods will benefit from the charges being carried forward as assets.

3. To determine that the asset amounts are being amortized or allocated to expense when such treatment is required and that the allocations of amounts between the balance sheet and income statement have been correctly figured.

Some indication is given in the following sections as to specific procedures which may be applied in achieving these objectives in connection with such items as may be encountered.

Prepaid Insurance

Prepaid insurance is probably the most common of the assets covered in this chapter. Equally common is the tendency to overaudit the insignificant amount likely to be represented in prepaid insurance premiums. The audit of this amount lends itself very readily to the preparation of very complicated and professional-looking working papers, and because the possibility to do so is present, it is sometimes difficult to resist checking out the amount of prepaid insurance down to the very last penny.

By way of contrast, the following procedures will usually suffice when good internal control is present. The work is based on the information contained in the client's insurance register, but the auditor should not recopy all the information from the insurance register to his working papers. Instead, he should work from the register in making his audit, and his work papers need then include only a statement of what he did and the conclusions he reached. He should note whether the amount of insurance coverage appears reasonable and adequate, and he should note that prepaid amounts appear proper in relation to the premiums paid and the period covered by those premiums. The various insurance policies in effect should be examined. Further support of the data recorded in the insurance register is gained in connection with the examination of the policies, but information about such other matters as property liens is usually of much greater importance. (See the discussion about such liens in the preceding chapter.)

There are two reasons for reviewing the client's insurance coverage. One is to cast some additional light on the balances shown in the property accounts. A $10,000 fire policy on a building carried at $100,000 should suggest that something may be wrong with the property figure. The second reason is to gain some indication of the adequacy of the coverage. If rising property values have reduced the effectiveness of insurance amounts established some years previously the auditor may perform a most valuable "extra" service by bringing the situation to the client's attention. This is particularly

true of policies which contain a coinsurance clause. Of course, any alert insurance agent should have brought up the matter long before, but the client may merely have thought the agent was trying to increase his income by selling more insurance. The auditor's independent appraisal of the situation might well be more convincing than the insurance agent's recommendations. Here is an excellent illustration of the importance of the provision in the rules of professional conduct prohibiting a public accountant from engaging in any profession or business which is incompatible or inconsistent with public accounting (Appendix D, rule 4).

The auditor should summarize the information about insurance coverage in his working papers if he has been requested to submit a long-form report on his examination which is to be used for credit purposes. Most creditors prefer to have information on such coverage, and the working papers can then be used in supplying the desired information for the report.

If the client does not maintain an insurance register, the auditor may wish to prepare and work from a schedule such as is illustrated by schedule L-1 at the close of this chapter. Note that even under inadequate internal control it should not be necessary for the auditor to analyze all entries in the prepaid insurance account, examine supporting data for the debits, and reconcile credits with the expense accounts. The materiality of the amounts simply does not warrant such extensive verification. Two things the auditor should be careful to watch for, however, are the disposition of dividends received from mutual companies and the reduced coverage that results if a claim is paid on a policy and no additional premium is paid.

Workmen's compensation insurance functions on a slightly different basis as compared with most other forms of insurance. An estimated premium is paid in advance, but the final determination of the premium is based on actual payroll disbursements as defined by the policy. As of the balance sheet date the amount of premium earned should be calculated based on the prescribed payroll figures. If this figure is less than the amount paid in advance the balance on deposit represents a prepaid expense. If the premiums earned exceed the amount deposited, an accrued liability must be shown. The auditor need simply review these calculations if they have already been made by the client.

Fidelity bonds also warrant a brief comment. If the policy contains any provisions or special requirements pertaining to an independent audit, the auditor should be certain that his examination meets all the stated requirements. Since these requirements may exceed the scope of the examination planned by the auditor, he should review

the fidelity bond provisions before he begins his examination. In this way he can avoid the possible risk of having to repeat part of his examination on an expanded basis, with the attendant embarrassing explanations to be made to the client.

Prepaid Taxes

Most taxes accrue rather than being prepaid. Property, franchise, and vehicle taxes are some of the principal exceptions. Such taxes vary only slightly in amount from year to year, however, and many companies avoid additional accounting costs by following the expedient of charging the payments directly to expense since any distortion of the financial statements will be negligible.

When prepaid amounts are deferred to future periods the deferred amount should be based on the time period covered by the tax. This period is open to several interpretations in the case of property taxes, but the preferred method is to write off the taxes in relation to the fiscal period of the taxing body to which they are paid. The theory here is that some direct benefits are received by the taxpayer as the taxing body expends the revenues it receives in the fiscal year.

Receipted tax bills, and in some cases paid checks, as well, should be examined in support of major tax payments. The calculation of any deferred amounts should then be reviewed by the auditor, as was done on L-2.

Prepaid Interest

Reference to loan agreements and to confirmations requested on payables should provide the auditor with adequate information to verify any prepaid interest. Most interest accrues, however, and is paid at the end of the period rather than in advance.

Prepaid Rent

The review of leases should provide the necessary information to verify any prepaid rent. If rent is regularly paid one month in advance, there need be no objection to charging each payment to expense and ignoring the one month's prepayment. Prepayments covering a longer period may well be material, however, and should be properly accounted for. Material amounts pertaining to periods beyond one year should not be classed as a current asset.

Expense Advances

If substantial expense advances appear on the balance sheet, two approaches may be followed in verifying the amounts. The most direct way is to obtain written, or possibly oral, confirmations from the individuals holding the advances. An alternative approach is to examine vouchers or paid checks in support of the amounts and dates of the original advances, and then examine the subsequent expense reports when they are received. Any unusual amounts should be carefully investigated, and possibly discussed with some official.

Prepaid Commissions

The verification of prepaid commissions is quite similar to the verification of expense advances, and both types of approach may be used. In this case, however, the report closing out the advance would be a sales report showing that the salesman had earned the commission. Any advances to salesmen no longer employed by the company should be subjected to very close scrutiny. At best, the amounts may be valid but doubtful of collection, but a more serious possibility is that the amounts are the result of defalcation activities.

Prepaid Advertising and Promotion

When expenditures have been made for advertising or promotional material, and the benefits will not be realized until the following period, the expenditures are properly treated as a prepaid expense. By study of invoices and an over-all review of the situation the auditor should be able to ascertain that the amounts involved are properly treated as prepaid expenses. Mail order houses ordinarily defer part of the production costs with respect to catalogs which are still in use, or perhaps have not even been distributed as yet to customers. Expenditures for institutional advertising expected to have an over-all, long-term favorable effect should not, however, be capitalized.

Postage

The verification of postage on hand is a simple matter if the client uses postage meter machines, since the auditor has only to read the descending register dials. If the postage is in the form of stamps, the auditor may not feel justified in counting the stamps if the total amount is reasonable and in line with the previous year. If a count

does appear to be necessary, it can be limited to stamps of larger denominations, plus full sheets of stamps of smaller denominations.

Supplies

When supplies are carried as an asset the amount should be based on a physical inventory taken by the client. The auditor's procedures should be similar to those used in connection with the merchandise inventory but applied on a much less extensive basis in view of the usual immateriality of the amount of supplies.

Deposits

Businesses occasionally are requested to deposit funds to assure payment or performance of services. For instance, airlines customarily require deposits from businesses in connection with the issuance of credit cards, and contracts often specify the deposit of a performance guarantee. Deposits should be verified by written confirmation if material amounts are involved. Otherwise, the figures can be accepted if they fit in with known facts and the amounts appear proper.

Unamortized Bond Discount

Verification of the amount of unamortized bond discount should begin with the original recording of the discount at the time the bonds were sold. If the bonds were sold through an underwriting syndicate, the statement rendered by that group will show the proceeds to the company of the bond issue. The difference between this amount and the face amount of the bonds will represent the figure for the discount. Other evidence of the proceeds of the bond issue would be cash book entries and deposit entries on the bank statement. The amortization of the discount over the life of the bonds should also be verified, of course, so the auditor can be satisfied that the remaining balance and the charge to interest expense for the year are correct.

If bonds are refunded through the cash proceeds of a new bond issue, the unamortized bond discount of the old issue can be deducted for tax purposes only in the year of refunding. If the client then chooses, for accounting purposes, to charge the unamortized discount to retained earnings, or to continue to write it off on the same basis as before, an adjustment must be made to avoid distorting net income. Without the adjustment, the deduction for tax purposes will reduce the amount of income tax and cause an increase in net income, even though the causal factor is essentially either an expense or a loss. The solution is to show a debit adjustment to income tax expense to bring

the total for that item up to the figure it would have been had there been no tax deduction for the unamortized bond discount. The offsetting credit should be either to the unamortized bond discount account, or to retained earnings if the discount has been charged to that account. The rule reflected by such an adjustment is that the tax effect of any item should follow the item itself. Thus if the unamortized discount is charged as a loss against income for the period, reduction in income taxes can also be shown in the income statement. If the loss is charged against retained earnings, the tax reduction should be credited to that account. If the discount is allowed to remain as a deferred charge, then the reduction in tax liability should be credited to the unamortized discount account. A complete discussion of this problem may be found on pages 87-92 of *Restatement and Revision of Accounting Research Bulletins,* issued by the Committee on Accounting Procedure of the American Institute of Accountants.

Plant Rearrangement Costs

The proper treatment of the costs of rearranging all or part of a factory to gain increased efficiency or for preparing to produce a new product presents an interesting accounting problem. Since original installation costs will already have been capitalized, the rearrangement costs cannot be treated similarly without overstating the plant accounts. The former costs could, of course, be treated as a loss, but determining the proper amount would be a tedious process, and in addition, the businessman finds it difficult to see why a loss should be recognized when he is spending money to improve the factory set-up. Charging the rearrangement costs to expense is even more difficult to justify, since the expenditures are definitely intended to benefit future periods. If the amounts are not material, however, this conservative treatment is often used.

The usual approach followed, representing a form of compromise, is to set up the rearrangement costs as a deferred charge, making no adjustment of the original installation costs. The charge is then apportioned to the years expected to benefit from the rearrangement, but the period involved should not exceed three to five years. Such a treatment should be satisfactory to the auditor if he is satisfied that future benefits are involved and that the write-off period to be used is reasonable. Through a test of the charges to the rearrangement cost account, the auditor should be able to satisfy himself that all charges do in fact relate to the rearrangement process, and that repairs made at the same time, or other expense items, have not been improperly charged to the account.

Leaseholds

When a premium is paid in order to acquire a favorable lease, or when a large advance payment of rent must be made in order to obtain a new lease, these amounts should be charged to a leasehold account. This account may be considered to represent either a deferred charge to future operations or an intangible asset, representing the cost of obtaining the right to use the leased property. In either event, the auditor should verify the original amount charged to the account, and he should be satisfied that the amount is being properly amortized over the life of the lease.

Improvements made by the lessee to leased property revert to the lessor at the termination of the lease. The cost of such improvements, described as leasehold improvements, may be carried as a separate item under property, plant, and equipment. If, however, it is felt that this classification would be misleading, in spite of the description used, then the amount can be classified as an intangible asset. The theory would be that the property, plant, and equipment classification is improper because no tangible asset is involved. What the lessee owns is merely the intangible right to use the improvements during the life of the lease. Regardless of the balance sheet treatment of the item, the auditor should see that the expenditures are being amortized over the life of the lease.

Goodwill

The proper handling of goodwill is indeed a controversial matter. Most accountants agree that only purchased goodwill should be recorded as an asset, but the determination of the cost of the asset may be quite problematical. The principal disagreement arises over whether purchased goodwill should be carried as an asset so long as operations are profitable, or whether it should be amortized by charges to expense, and, if so, over how long a period. Since there are firm defenders of both alternatives, it may be said that there is no generally accepted method of handling goodwill. Conservatism, however, tends to favor the write-off of goodwill over a reasonably short period of time.

The auditor should take a firm stand against the arbitrary recognition of goodwill (no matter how obvious its existence might be), and against the treatment as goodwill of major advertising expenditures designed to improve a company's reputation or to introduce a new product. When there has been an actual purchase of goodwill, the auditor must satisfy himself that the amount to be shown on the balance sheet has been reasonably determined. Even if the figure for

goodwill is specified in the contract for the purchase, the figure may merely represent the difference between the book value of the assets being sold and the total price for the going business. On the books of the purchaser, the tangible assets acquired should be recorded at their estimated fair market value at the time of purchase, and not at the same figure at which they were carried by the seller. The difference between this fair market value and the total purchase price will then be the amount of goodwill to be recognized. Although the auditor is not expected to be an appraiser, he should at least satisfy himself in a general way that the fair market values are reasonable and that a sincere effort was made to arrive at a representative figure.

As to the amortization of goodwill, about the only thing the auditor can do is to see that amortization, if figured, is consistent from year to year. Any balance in the goodwill account, regardless of whether amortization is being taken, should be allowed to remain as an asset only if sufficient profit is being earned to show that goodwill actually does exist.

Organization Costs

Although organization costs warrant approximately the same accounting treatment as goodwill, it is perhaps more common to amortize organization costs. Most accountants and businessmen would probably prefer to expense such costs at the time they are incurred, but the financial condition of a new business can seldom absorb such a charge in the first year. As a consequence, organization costs are usually capitalized and then amortized over a five- or ten-year period. Expenses in connection with subsequent issues of stock should not be added to this account but should be shown as an expense, or deducted from the proceeds of the sale of the stock. Organization expenses incurred prior to August 16, 1954, are not deductible for income tax purposes, but expenses incurred after that date may be deducted if amortized over a period of not less than sixty months.

The verification of unamortized organization costs would follow the general plan suggested in preceding sections.

Research, Experimental, and Exploration Costs

Expenditures made with the hope that they will result in future benefits present a particularly knotty accounting problem. A business obviously will not make such expenditures unless benefits are expected, and yet experience shows that only a small proportion of the projects will actually be successful. Lacking the ability to foresee the future, most businesses take a conservative viewpoint and expense all,

or most, of their research, experimental, or exploration expenditures. Such treatment is especially common and most appropriate in businesses which are making such expenditures continually, and at a fairly constant rate from year to year. From an auditing viewpoint, the main concern over such expenditures should be to see that they are not being made in such a way as to result in an intentional distortion of net income. For instance, an oil-producing company which shows a satisfactory income from its existing operations may, for tax purposes or other reasons, decide to "drill up" all its income by drilling more than the usual number of new wells. It is doubtful whether the auditor could justifiably state in such a case that the income statement, showing only a very small profit for the year, presents fairly the results of operations.

In the case of oil companies, the acceptable method for both accounting and tax purposes of expensing drilling and exploration costs relates only to the so-called "intangible" portion of such expenditures. These would include such items as labor, drilling bits, and lubricants. Drilling rigs, pipe, and other items which can be re-used must be capitalized. The same principles would apply to a company which maintains a large research department. Equipment which has a permanent value beyond its use on a specific project should be capitalized.

When a company engages upon a special research project, particularly if the company ordinarily does very little research work, costs related to the special project should probably be capitalized. However, if at any time it begins to appear likely that a project will be unsuccessful, prudence suggests that the costs which had been capitalized should immediately be charged against income. For successful projects, the capitalized costs should be amortized over the periods in which benefits are expected.

Patents

In instances where patents result from previous research expenditures, it would appear that the expenditures should have been capitalized. As suggested in the preceding section, however, companies which engage in such activities as a regular practice in order to keep abreast of competition seldom capitalize the expenditures. In those cases where the costs have been capitalized, the auditor should test the detailed figures against supporting evidence to determine that the resulting total is made up of items which are correct in amount and which actually apply to the project. If a patent is acquired by outright purchase, the contract of sale should be examined if one exists,

and the paid check resulting from the transaction should also be examined. Such items as attorneys' fees relating to the acquisition of a patent or to the successful defense of a patent infringement suit are also properly capitalized, and should likewise be subjected to audit verification.

The valuation of patents acquired in exchange for capital stock should be closely scrutinized. In one instance a business acquired patents and patent applications from predecessor companies through issuance of capital stock, part of which was eventually to be donated back to the company, and valued the patents and patent applications at the par value of the issued stock. The patent amounts constituted the principal assets of the new company, which proposed to raise funds through the public sale of stock. The financial statements showed how the patents and patent applications had been acquired, and on this basis the company's auditors issued an unqualified opinion on the statements. The Securities and Exchange Commission refused to accept the statements with the patents valued in the manner described above and censured the auditors, a national public accounting firm, for approving the company's statements.

As evidence of ownership of patents the patent letters should be examined, and there should be no payment of royalties for the use of the patented items or processes. Although patents have a legal life of seventeen years, their economic life is usually much shorter. Amortization should be based on the shorter of the two periods, and the auditor should carefully review the decision reached in this respect.

Copyrights

Most of the points mentioned in connection with patents apply also to copyrights. The legal life of copyrights is twenty-eight years, and they can be renewed for another twenty-eight-year period, but their economic life is usually much shorter. Many publishers write off all copyright costs over the first printing of a book, or over the first year of publication.

Trademarks

Trademarks are not subject to a maximum legal life period, and their acquisition costs are usually nominal unless a trademark with an established reputation is acquired. The nominal costs are best expensed as they are incurred. Material amounts are ordinarily capitalized, and although they can be allowed to stand as long as the trademarked item is successful, amortization over a reasonable period is usually in order.

Franchises

The life of a franchise is usually definitely stated in the franchise agreement, and any costs incurred should be written off over that life period. The existence of the franchise, the costs of its acquisition, and the basis chosen for amortization of the costs should all be verified by the auditor.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of other assets in *Case Studies in Auditing Procedure*, Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Prepaid insurance	$ 3,700
Total current assets	453,000
Total assets	565,000

An analysis of the prepaid insurance account was made each quarter, and invoices were examined in support of the charges. From this analysis a schedule was prepared showing all pertinent facts concerning each policy, as well as the quarterly premium expense and the prepaid amount at the end of the year. Quarterly entries for expired insurance were prepared from this schedule, and at the end of the year the insurance policies still in effect were examined and compared with the schedule.

The quarterly entry for workmen's compensation insurance expense was also prepared by the auditor. Monthly payroll entries were summarized according to the classifications specified by the policy, and the prescribed rates were applied to the various classification totals to obtain the amount of premiums earned. These figures were always verified during the next quarter's examination by reference to the quarterly bills received from the insurance company.

Case B (Loading and Hauling Equipment Manufacturer)

Deferred charges (separate classification)	$ 44,000
Total assets	3,438,000

The verification of prepaid insurance, supplies, and an airline deposit included in the deferred charges figure required about 1 per cent of the total audit time. The client's staff prepared a schedule of insurance cov-

erage and unexpired premiums. The auditor examined policies in support of the information shown, noting the following:

1. Whether the policy was in the client's name.
2. Whether a coinsurance clause was present.
3. Whether there was any indication of a lien on the insured property.

Dates of policies, property covered, premiums paid, and expiration dates were also traced to the insurance ledger. Expense charges for the year as shown by the insurance ledger were compared with the amounts shown in the general ledger insurance expense accounts. Any significant changes in coverage since the previous year were brought to the client's attention, and satisfactory reasons for the changes were obtained.

A physical inventory of supplies taken at May 31 had been tested in conjunction with inventory tests made at that time. Major charges to the supplies account made subsequent to the physical count were traced to paid vouchers. Credits for withdrawals were tested against the supporting supply requisitions.

The airline deposit was confirmed.

Case C (Department Store)

Deferred charges	$ 50,000
Total assets	5,600,000

Included under deferred charges were prepaid taxes, prepaid insurance, and supply inventories. Since the amounts were not significant and did not present any unusual problems, no comment was included in the case study on these items.

Machine Products Co.
Unexpired Insurance

WKW
1/12/57

12/31/56

Policy No		Insurance Co.	Coverage		Amount of Coverage		Date Effective	
23465	n	Hartford Insurance Co.	Fire + E.C. - Bldg + Cont	n	1,000,000.00		7/1/54	n
12264	n	Aetna Insurance Co.	" " " "	n	2,000,000.00		10/1/56	n
219416	n	Royal Insurance Co.	" " " "	n	500,000.00		11/15/55	n
13260	n	Liberty Mutual Ins. Co.	Public Liability	n	100,000/300,000	n	3/15/56	n
96547	n	Indemnity Ins. Co. of N.A.	Workmen's Comp.	n	Full	n	4/1/56	n
22145	n	National Union Casualty Co.	Sprinkler Leakage		10,000	n	5/1/56	n
14-8762	n	American Ins. Co.	n Business Interruption		3,000,000	n	2/1/54	n
76215	n	Continental Casualty Co.	Blanket Fidelity Bond		100,000	n	6/15/55	n

n Policy examined

All risks appear to be adequately insured. Fire and extended coverage on buildings and contents in amount of $3,500,000 covers following assets shown at book value, or cost. Excess of insurance over carrying values is based on present day appreciated values for building and machinery and equipment.

Inventories, at cost			
Raw material		1203456	18
W.I.P.		606283	19
Fin. Goods		115692	85
Supplies		76418	91
		2001851	13
Plant + equip at cost			
Building	746455 93		
Mach + Eq - Fact	645059 11		
" " - Office	26300 28		
Total	1417715 32		
Accum. Depn	599216 22		
Carrying value		818499	10
Total work value of insured assets		2820350	23

Policy Expires	Premium	Unexpired Insurance per Company Work Sheet 12/31/56	Unexpired Per Audit	Company Over (Under)	
7/1/59 n	15,000.00 n	7,500.00	7,500.00	—	
10/1/59 n	18,000.00 n	16,500.00	16,500.00	—	
11/15/58 n	4,500.00 n	2,812.50	2,812.50	—	
3/15/57 n	1,800.00 n	375.00	① 660.00	(285.00)	Credit to M+A Expe.
4/1/57 n	40,000.00 n	10,000.03	② 7,050.05	2,949.98	Debit to Factory O.H.
5/1/57 n	50.00 n	16.64	16.64	—	
2/1/57 n	7,500.00 n	208.45	208.45	—	
6/15/58 n	1,200.00 n	550.06	550.06		
		37,962.68	35,297.70	2,664.98	
		To B/S-A			

Adj. J.E. ⑥

① Company failed to allow for normal 20% dividend on this policy, which is with a mutual company.

Total premium	1,800.00
Less 20%	360.00
Effective premium	1,440.00
Unexpired, 2 1/2 mos.	300.00
Estimated dividend	360.00
Total, as above	660.00

② Company has been writing off the deposit on a straight-line basis. Correct calculation of premium earned:

		Total Payroll	Rate per $100	Prem. Earned
Factory payroll, per 20-1		3,996,608.11	1.04	41,564.72
Office payroll				
Selling per 30	1,563,078.2			
Gen'l Admin per 30	1,963,285.1			
Officers per 30	321,000.00	673,636.33	.093	626.48
				42,191.20
Premium prepaid at 12/31/55				9,241.75
Deposit on 4/1/56				40,000.00
Total deposit				49,241.25
Premium earned, as above				42,191.20
Unexpired insurance at 12/31/56				7,050.05

Machine Products Co.
Prepaid Property Taxes

J.A.S.
1/8/57

12/31/56

	Personal Property Tax	Real Estate Tax	Total
Balance 12/31/55 - Prepaid	15,016.75	4,204.28	19,221.03
Payment 6/18/56 - 2nd half, 1956	15,016.74 M	4,204.27 M	
Payment 12/8/56 - 1st half, 1957	16,406.41 M	4,367.86 M	
Total	46,439.90	12,776.41	
Charged to expense; 1956	30,033.49	8,408.55	
Balance, 12/31/56 - Prepaid	① 16,406.41	① 4,367.86	20,774.27

To B/S-A

M Examined receipted tax bill

① Taxes to be used by taxing body during first half of 1957, and hence properly deferred by company to 1957 to cover services to be received in that period. County operates on December 31 fiscal year.

Expense Use - in

Personal property tax charged to expense		30,033.49
Real estate tax charged to expense		8,408.55
Total		38,442.04
Property tax expense -		
Factory overhead	20-2	37,336.61
Selling expense	30	330.47
General + Admin. Exp.	30	774.96
Total, as above		38,442.04

Review Questions

1. What are the two principal aspects of internal control over prepayments, deferred charges, and intangibles?

2. Briefly describe three variations in the method of accounting for supplies and handling the related detailed records.

3. What are the internal control advantages of using a postage meter machine?

4. Since prepaid expenses will not be converted into cash, are they properly shown as a current asset? Explain.

5. How can the auditor proceed in the verification of "other assets" when internal control is adequate and only minor amounts are involved?

6. What are the auditor's objectives in verifying "other asset" accounts if internal control and the materiality of the amounts necessitate that a full examination be made?

7. How is the auditor's verification of prepaid insurance simplified if the client maintains a satisfactory insurance register?

8. Why should the auditor review the amount of the client's insurance coverage?

9. What auditing procedures may be used in connection with expense advances?

10. How should the auditor proceed in verifying unamortized bond discount?

11. Should the auditor accept as the proper valuation for goodwill the value set on goodwill in the contract covering the purchase of a business? Explain.

12. How do you account for the fact that good accounting favors capitalizing goodwill, which is indirectly determined by calculating the difference between the purchase price of a business and the fair value of the assets included in the purchase, and yet requires that direct expenditures to create goodwill through advertising and promotional activities be charged to expense?

13. What three different methods may be followed for treating purchased goodwill in the accounts?

14. What possibility should the auditor watch for when a company follows the policy of expensing such items as research, experimental, or exploration costs?

15. Describe the auditor's verification of the intangible item of franchises carried in the balance sheet.

Questions on Application of Auditing Standards

16. What auditing procedures would you employ in examining an account "Advances to employees for travel expenses"? In addition to the general ledger account there is a record of each individual advance maintained in a separate file folder. You have been requested not to confirm balances with the employees.

17. Your client maintains a complete insurance register, and you are instructed to make your examination of prepaid insurance against this record. Write a memorandum covering the work you would have done in connection with such an examination.

18. List six different prepaid expenses or deferred charges, and for each indicate from what documents you would obtain evidence as to

(*a*) The amount of the original disbursement.

(*b*) The period over which the amount should be written off.

19. What three methods of handling unamortized bond discount when a bond issue is refunded are recognized by the A.I.A. pamphet, *Restatement and Revision of Accounting Research Bulletins*? Indicate whether each was adjudged as being preferable, satisfactory, or not acceptable.

20. Would you be willing to give an unqualified opinion on the financial statements in each of the following situations? Explain.

(*a*) Company A charges all office supplies to expense when they are purchased.

(*b*) Company B charges all office supplies to an asset account when purchased, and to an expense account as they are requisitioned.

21. Give three reasons for examining fire insurance policies in connection with an examination of financial statements.

22. Your client owns a single building which houses the factory and the office. He carries no fire insurance on the building and no self-insurance reserve is maintained. No comment is made in his balance sheet concerning the situation. Would you be willing to give an unqualified opinion on the financial statements? Explain.

Problems

23. Bonds with a twenty-five year maturity and in the face amount of $500,000 were issued at 95 fifteen years ago. The bonds have now been called at 102 and paid off with the cash proceeds of a new bond issue. Your client plans to write-off the unamortized discount and the redemption premium over the next ten years in accordance with the recommendations of the A.I.A. For income tax purposes, however, the entire "loss" on the retirement must be deducted in the year of retirement, and the company plans to follow this method in preparing its tax return. Corporation income tax rates may be assumed to be 55 per cent.

(*a*) If the company shows its tax expense and tax liability in its financial statements at the amount to be shown on its tax return, how much larger will its net income be than if the bonds had not been called?

(*b*) What adjustment would you recommend that the company make to avoid showing a larger net income as a result of entering into a transaction which produced an actual loss?

24. On February 1, 1954 Adams assigned a patent, newly issued to him, to the Hayworth Manufacturing Co., under a contract which provided that the latter "would pay Adams a royalty of $2.00 for each unit produced in accordance with the Adams patent and installed in Hayworth machinery delivered to any point outside the plant, regardless of whether such deliveries were based on sales, transfers to branches, or consignments to agents."

On the date of the assignment the Hayworth Co. paid Adams $500 advance royalties. Thereafter, no royalty payments or statements of royalties earned were received by him. His efforts to obtain information elicited only the response that the royalties earned did not equal the amount paid him.

Finally, in 1957, Adams asked you to determine the facts.

Outline a program to ascertain the amount of royalty due or overpaid to Adams under his contract with the Hayworth Manufacturing Co. (A.I.A.)

25. You have been employed to make an audit for the first time of the Crawford Corporation for the year ended December 31, 1956. Your investigation of the single prepaid expense and deferred charge account disclosed the information given below.

You are required to

(*a*) Prepare the adjusting journal entries necessary to correct each individual item if, in your opinion, an adjustment is necessary.

(*b*) Briefly state the procedure you would follow in the audit of each debit in the account.

Prepaid Expenses and Deferred Charges	*Debit*
1. Interest ..... (Interest paid in advance on a $30,000, one-year, 4% note dated October 31, 1956, to the First National Bank.)	$1,200.00
2. Accounts receivable ..... (This represents an entry of September 30, 1956, made to the credit of the accounts receivable controlling account for the purpose of agreeing the controlling account with the sum of the subsidiary account balances; the discrepancy had existed for three years.)	476.20
3. Flood damage ..... (This represents an uninsured loss from damage to factory machinery caused by a river flood in March, 1956.)	$4,765.00
4. Bond discount ..... (This represents the discount on $200,000 of 3%, 20-year, first mortgage bonds, sold January 2, 1955.)	5,000.00
5. Organization expense ..... (This represents legal fees incurred when capital stock of no par value was issued to replace the outstanding par value capital stock in 1956.)	800.00

(A.I.A.)

26. The Baker Co. asks your help in determining the amount of loss and in filing an insurance claim in connection with a fire which destroyed part of the company's inventory and some of the accounting records. You are able to obtain the following information from the records available:

(*a*) The fire occurred on July 15.

(*b*) The last physical inventory was taken on the previous January 31st, and the inventory at that time, at cost, was $23,421.52.

(*c*) The annual premium of $160 on the insurance carried was due and paid on May 1. The face amount of the policy is $15,000, and the policy carries an 80 per cent co-insurance clause.

(*d*) Accounts payable were $12,234.16 on January 31, and $14,105.22 at the time the fire occurred.

(*e*) Payments to vendors from January 31 to the date of the fire amounted to $71,319.87.

(*f*) All sales are on account, and accounts receivable were $15,001.97 at January 31 and $11,905.80 at the date of the fire.

(*g*) Collections on receivables from January 31 to the date of the fire amounted to $97,355.92.

(*h*) Most articles sell at approximately 25 per cent in excess of cost. An inventory of merchandise not destroyed by the fire amounted to $16,098.62 at cost on July 15.

27. The Golden Glow Mining Co. leased a gold mine from the Never Fail Prospecting Co. on the following terms:

(*a*) Date of contract, July 1, 1952.
(*b*) Royalty, $0.50 per ton of ore mined.
(*c*) Minimum royalty, $10,000 per year.
(*d*) Royalties paid in excess of the tonnage mined in any year are deductible against royalties due in excess of $10,000 in each of the succeeding three years.
(*e*) Royalties are payable at the end of each year on the contract date.

Prepare a work sheet covering an examination of the account "Prepaid royalties" on the books of the Golden Glow Mining Co., in connection with an examination for the year ended December 31, 1956. The following information is from the records of the mining company:

(*a*) Tons mined, contract year ended June 30—

1951	15,000	1954	17,000
1952	16,000	1955	20,000
1953	18,000	1956	22,000

(*b*) Tons mined, July 1, 1956 to December 31, 1956—12,000.
(*c*) A monthly entry is made debiting royalty expense and crediting accrued royalties for the royalties due on tons mined for the month.

28. From the following information prepare working papers and any adjusting entries covering your examination of prepaid insurance in connection with an examination of the Hartmore Co. for the year ended December 31, 1956. Your work papers should not duplicate information available in the client's records, and should be in keeping with the relative immateriality of the balance in the prepaid insurance account. The papers should enable the senior accountant to satisfy himself that coverage is adequate. Information concerning property covered by fire and extended coverage at December 31, 1956:

Building, constructed 1940, book value	$242,000
Machinery and equipment, book value	78,420
Inventory, cost	86,304

Balance of prepaid insurance account per general ledger as of December 31, 1956—$4,150.00. Payrolls average $100,000.00 per month.

Insurance Register

Company	*Policy No.*	*Coverage*	*Date of Policy*	*Expiration*	*Premium*	*Monthly Expense 1955*	*Unexpired 12/31/55*	*Monthly Expense 1956*	*Unexpired 12/31/56*
Hartford Ins. Co.	23,806	Fire & extended coverage Bldg. & Contents, $500,000	4/1/55	4/1/58	$3,600.00	$100.00	$2,700.00	$100.00	$1,500.00
Conn. Mutual	104,352	Public liab., 10/50	8/1/55	8/1/56	240.00	20.00	140.00	20.00	—
Continental Casualty	34,491	Theft and burglary, $10,000	2/1/56	2/1/57	120.00			10.00	10.00
Atlantic Indem.	23,444	Workmen's Comp.	3/1/56	3/1/57	2,000.00*				2,000.00
American Surety Co.	14,798	Employee and officer fidelity, $20,000 each	7/1/56	7/1/59	600.00			16.66	500.00
Conn. Mutual	108,251	Public liab., 10/50	8/1/56	8/1/57	240.00			20.00	140.00

* Premium shown is merely a deposit. Rate charged is $0.30 per $100.00 payroll, based on quarterly reports.

12 · Liabilities

As we move from the examination of assets to the examination of liabilities, the change involved is much more than merely shifting our consideration from the left-hand to the right-hand side of the balance sheet. Among the differences which affect the work of the independent auditor are the following:

1. Management fraud, designed to improve the apparent financial position of a company, is accomplished by an *overstatement* of assets, but by an *understatement* of liabilities. An overstatement of an asset necessitates an overt act in the form of a fictitious entry, and by verifying asset entries and balances, the auditor can, as a rule, quite readily detect the fictitious amount. The understatement of a liability, on the other hand, requires no action at all. A transaction which has given rise to a liability need merely be ignored in the records to achieve the desired effect. The auditor's problem is then much more difficult, for he has no convenient starting point for his examination designed to disclose a possible unrecorded liability. Instead, his approach must be indirect and much more circuitous. The problem is exemplified by situations mentioned in earlier chapters involving the problem of ascertaining the possible existence of unrecorded outstanding checks or of unrecorded retirements of plant assets.

2. Defalcations by employees present less of a problem in the case of liability accounts since defalcations usually involve the abstraction of assets, and manipulations to conceal the resulting shortage are thus centered in the asset accounts. Some possibility for fraud does exist in the case of liabilities, nevertheless, since employees who are authorized to obligate their company by borrowing money may appropriate the proceeds of a loan and make no book record of the liability. Because such opportunities are limited to a very few employees, the problem is therefore less extensive than in the case of assets, which may be accessible to a considerable number of employees.

3. Most liabilities are a statement of fact, whereas most assets involve valuation problems based on individual judgment. Only some of the contingent liabilities, such as a provision for costs to be incurred in connection with product guarantees, involve a valuation problem.

The above differences, and others as well, will become evident as the reader progresses through this chapter. The chapter organization follows the pattern established in the preceding chapters dealing with the examination of assets.

INTERNAL CONTROL

Perhaps the two most important phases of internal control over liabilities are the authorization for creation of a liability and the approval of disbursements liquidating the liability. The control over liabilities resulting from purchases of materials for inventory and production was discussed in considerable detail in the chapter on inventories. The control over liabilities related to payroll is discussed in detail in the chapter on expenses. The control over the liquidation of liabilities was discussed in the chapter on cash, as related to cash disbursements. The discussion in this chapter is therefore limited to liabilities not covered in other chapters, and to the records to be maintained for the various liabilities.

Notes and Bonds Payable

The authority to borrow money should be restricted to only two or three officers of the company, with the signatures of two officers required on any notes. The authority should be granted by the board of directors, and the officers should be limited as to the maximum amount for which they can obligate their company. Larger borrowings should be made only under specific authorization of the board of directors.

If only occasional loans are made, the general ledger account may well contain all needed information. For concerns which borrow frequently from many sources, including individuals (a commercial finance company would be an example), preprinted, serially numbered notes should be used, and a note register showing all pertinent information should be maintained. These comments also apply to bond issues, when the company handles all the details. Preferably, however, a bond issue should be handled through a trustee and with a separate registrar. These agents can then control the issuance of the bonds and

the remittance of proceeds, with the company maintaining a double check on their activities.

All interest payments should be subjected to close scrutiny before they are approved, to be certain that interest is being paid only on known liabilities. If coupon bonds are involved, those coupons which have been paid should be counted, reconciled with the amount of cash disbursed, and then mutilated to prevent their re-use. If the bonds are registered as to interest, Addressograph plates can be used to prepare the periodic interest checks. The employees responsible for the file of plates should have no responsibilities pertaining to cash. Again, however, when large amounts are involved the best arrangement is to handle the payments through an independent disbursing agent. Only one interest check will then be required.

The repayment of loans involves the same precautions as apply to the payment of interest. Each disbursement should be ascertained to cover a known and recorded liability before it is approved. Release of the check should then be made only upon presentation of the note or bond being paid. The retired instrument should be marked paid, or mutilated, and retained in the files as evidence that the debt has been paid. When bonds have been paid through a trustee, the trustee may merely submit a cremation certificate listing the bonds which have been paid and destroyed.

Any checks issued for payment of interest or principal which are not claimed should be kept under close control. The best plan is to cancel such checks and reinstate the liability pending submission of a claim for payment or the eventual transfer of the unclaimed amounts to income.

Accounts Payable

Since matters relating to the creation and liquidation of the usual accounts payable liability have already been discussed in other chapters, the discussion here relates largely to the form of the accounts payable records. Most businesses are less precise in their accounting for payables than in their accounting for receivables. Although great care is taken that every disbursement is fully supported by evidence showing that a liability actually exists and has not previously been paid, streamlining and short cuts are the rule with respect to records designed to assure that all liabilities will be paid. The theory here is that the creditor can be expected to maintain careful record of his receivables, and will therefore inform the company if any liability payments have been overlooked or lost. In other words, to reduce

costs companies may permit part of the responsibility for prompt payment of their debts to remain with their creditors.

The above comments should not, however, be interpreted as an endorsement of poor or inadequate payable records. As noted below, a fairly high minimum standard is suggested for accounts payable records, even though that standard is somewhat less than was suggested for accounts receivable records.

Accounts Payable Records. Usually, no record is made of an invoice until it has been processed and approved for payment. If such processing involves sending the invoice outside the accounts payable department, however, some control should be established. One manner of obtaining such control is to number each invoice and then use the identifying number to prepare a register showing the department to which the invoice was sent and the date. The entry is crossed out when the invoice is returned.

Approved invoices are usually entered in a voucher register and then filed alphabetically or by due date until payment is to be made. Smaller businesses frequently wait until the payment date to make any entries and then simply make one entry in a cash disbursements record, which has columns to provide for the distribution of the debits. In this way they avoid having to make an entry in both the voucher register and the check record. To attain this economy they sacrifice early accounting control over the unpaid invoices and depart from the preferred accrual basis of accounting. The latter shortcoming can be overcome by first entering at the beginning of a month those payments which relate to the previous month's business. When these payments have all been made, subtotals of the entries to that point in the cash disbursements record provide the information for an adjusting entry in the worksheet if monthly statements are to be prepared.

Some small businesses continue to use an accounts payable subsidiary ledger, but this additional record is warranted only if partial payments or advances are made.

Larger businesses normally use some variation of the voucher register to record and distribute invoices after they have been approved. If the distribution involves many accounts the columnar distribution is often replaced by a unit ticket method, in which a separate ticket is prepared for each debit resulting from an invoice. These tickets are then sorted by account number and totaled at the end of the month to obtain the debit postings from the voucher register. The same techniques can be fully mechanized by the use of punched cards.

Filing Unpaid Invoices. After invoices have been recorded in the

voucher register they should be filed in a systematic manner until payment is to be made. If all invoices are regularly paid on one or two dates each month, the invoices should be accumulated in an alphabetical file. If payments are to be made on discount dates, the invoices should be filed by due date in a tickler file. The possible loss of valuable discounts suggests that reasonable control over invoices is warranted to avoid their being lost or overlooked.

Payment of Invoices. As invoices are paid the payments should, of course, be recorded in a check register or cash disbursements journal. In addition, some concerns indicate the check number and payment date opposite the appropriate entry in the voucher register to show that the invoice has been paid. To avoid the costly preparation of a cash disbursements journal, some companies merely substitute a numerical file of duplicate copies of the checks.

Monthly Proof of Accounts Payable. Each month someone should balance the detailed payables records with the general ledger control. This operation will consist of making an adding machine tape of all unpaid invoices on file and balancing the tape with the general ledger control. If payments are noted in the voucher register, a tape of the "open" items should also be prepared and balanced with the tape of unpaid invoices and the ledger control.

An even more important procedure is the balancing of the detailed payables records with vendors' statements when such statements are submitted. Checking out the statements against the company payables records is an excellent way to disclose bookkeeping errors or unrecorded invoices.

The monthly proofs and analyses of vendors' statements are preferably to be made by someone who is not directly responsible for maintaining the payables records. When such segregation of duties is not feasible, a supervisor or other superior should review the trial balance tapes prepared by the bookkeeper to be sure the tapes have been prepared and that the records are in balance. Vendors' statements should also be reviewed after they have been reconciled with the payables records.

Audit Implications of Payables Records. The concern of this section is not with the auditing of the payables records. This material is covered in the verification section of this chapter. Rather, the purpose here is to point out the indirect effects of one company's payables records upon the auditor's examination of the records of one of the company's vendors. One company's payables are the receivables on the books of its vendors, and as was noted in the receivables chapter, confirmation of accounts receivable is an essential audit procedure.

The manner in which most companies handle their payables often makes it difficult, if not practically impossible, to reply to receivables confirmation requests. In fact, as was noted in the receivables chapters, chain store organizations and railroads frequently rubber-stamp confirmation requests with the notation that their records do not make it possible for them to reply to such requests.

From the discussion in the immediately preceding sections, the reasons for such responses should be apparent. Most important among these are the difficulty of determining the exact amount owing to a given vendor when some of the invoices may be in unmatched invoice files awaiting notification of the receipt of materials, others may have been sent out to other departments for approval, and still others may be distributed throughout the tickler file, awaiting payment.

Often the only way to answer such requests is to wait a reasonable length of time and then base the reply on information gained from the file of paid invoices. These are usually filed alphabetically, and by referring to invoice dates and payment dates, those unpaid at the confirmation date can be determined. Even this may not be possible in a large chain organization, however, for the invoices are often retained in the individual branches or stores, the home office making payments based only on lists of items approved for payment by the various branches or stores. Payment to a vendor is then made by preparation of a single check covering all purchases by the various sub-units.

Internal Reports

Since many liabilities occur infrequently, little can be done to institute adequate internal check over the transactions. Some control is gained in connection with the liquidation of liabilities, and periodic (daily, weekly, or monthly) reports of all liabilities represent an important supplement to such control if the reports are reviewed by top officials. Supplementing such reports should be detailed information concerning the larger and more active liabilities. For instance, an analysis of accounts payable might show the balance at the date of the previous report, new payables added, payments, and the present accounts payable balance. Other information might include figures on discounts earned and discounts lost, an aging of the payables to reveal old items which have not been paid, and a listing of balances with major suppliers. If advances or other transactions give rise to debit balances in accounts payable, the debit balances should be reported separately and aged to give further information.

Internal Auditing

Among the internal auditor's most important activities as related to liabilities are constant evaluation of the procedures for handling liabilities and compliance tests to indicate whether the established procedures are being followed. Among things he should watch for are close control over the authority to incur liabilities, prompt recording of the liabilities as they are incurred, and proper handling of the liabilities so as to assure that only valid items are paid and that all payments are made by the due date.

In his audit verification work the internal auditor should seek to determine whether all liabilities have been recorded and that those which have been recorded are correctly stated. Such procedures should be concerned particularly with liabilities which may have arisen outside the bounds relating to routine transactions. Some of the specific procedures which the internal auditor would normally apply would include a review of all activity in liability accounts, balancing of details with ledger balances, examination of supporting data such as invoices and vendors' statements, confirmation of balances with third parties, and review of all important contracts and the minutes of directors' or special committee meetings. This latter review is designed particularly to detect liabilities which may not have been recorded, such as product or performance guarantees, large purchase commitments, or lawsuit claims.

A few points warrant special attention in the course of the verification work. Excessive amounts of lost discounts should be noted and the cause of such loss uncovered, supporting data to paid liabilities should be examined for possible indication that duplicate payments may have been made, records pertaining to advances to vendors should be verified to show that such advances have been properly accounted for, the cut-off of the liability records should be tested at some month end, and operations should be studied to discover any accrued liabilities which may have been incurred.

STANDARDS OF STATEMENT PRESENTATION

The make-up of existing liabilities is usually of considerable importance to creditors or prospective lenders who may be studying a balance sheet. Knowledge of the various types of current liabilities may give some indication of how those liabilities are likely to fall due during the coming year, and whether there are any which can be readily postponed or extended. Perhaps even more important, the

types of liabilities may give some indication of the concern's credit worthiness. Only good credit risks are likely to obtain unsecured bank loans. Those whose credit standing is weaker may have to give collateral security in obtaining a loan from either a bank or a commercial finance house. The security given may also give a clue as to credit standing. Some companies may pledge government securities in obtaining a loan. These companies are obviously in a very sound position and are borrowing from the bank because it is more advantageous than selling the securities and then replacing them when the added funds are no longer needed. Certain types of inventory loans (such as dealer floor plan financing*), or equipment loans (such as equipment trust certificates), are quite common in many businesses and carry no stigma. Loans secured by regular inventory or by pledging receivables are, however, likely to be an indication of financial weakness.

The above comments suggest some of the reasons for certain statement practices concerning liabilities which have become relatively traditional. These and other considerations are reflected in the following list of points which should be observed if the presentation of liabilities in the statements is to meet adequate standards.

1. Any liability which is material in amount should be shown separately and carefully described.

2. The arrangement of liabilities in the current section should follow the traditional pattern. This pattern is indicated in the following listing which, for illustrative purposes, contains many more individual items than would usually be shown for any one concern.

Bank loans
Demand loans
Term loans, privately placed
Notes payable, sold through note brokers
Notes payable to trade creditors
Trade acceptances
Notes payable to officers
Trade accounts payable
Other accounts payable
Accounts receivable credit balances
Accrued liabilities
Income taxes payable
Dividends payable
Sinking fund requirements due within one year
Current serial bond maturities
Deposits, such as returnable container deposits
Deferred credits
Subordinated debts

* A type of financing used by automobile or other kinds of dealers in which inventory purchases are financed by loans secured by the inventory items while they are in the dealer's hands. The loans are then repaid out of the proceeds as the inventory items are sold.

3. Material amounts of accounts or notes payable to parent or subsidiary companies, stockholders, directors, officers, or employees should be shown separately from payables to third parties.

4. For secured liabilities the description should preferably include identification of the assets pledged, supplementing the reference to the lien which should appear on the asset side of the balance sheet.

5. Assets and liabilities should not be offset. This rule requires that material amounts of accounts payable debit balances be reclassified to the asset side of the statement and precludes deducting a liability from an asset by which it is secured; for instance, the deduction of secured installment notes from the cost of the equipment purchased. One exception to the rule of offsets is recognized: U.S. Treasury tax notes may be deducted from the liability for Federal income taxes, provided both amounts are shown.

6. Contingent liabilities not provided for by accounting entry should be shown "short" or given as a footnote to the balance sheet.

7. Long-term liabilities should be completely described, including indication of call date and price, maturity date, and interest rate.

8. Treasury bonds and notes are preferably shown as a deduction from the outstanding liability. If they are shown as an asset there should be a clear indication that they are the company's own securities.

VERIFICATION OF STATEMENT AMOUNT

The auditor has two main objectives in making his examination of liabilities. These objectives are:

1. To establish that recorded liabilities are correctly stated.
2. To ascertain the existence of any unrecorded liabilities.

The procedures followed in attaining the first objective vary considerably for each of the various types of liabilities, and there is thus a separate section dealing with each of the more common types of liabilities. The procedures relating to the disclosure of possible unrecorded liabilities are more general and are not separately classified under the second objective.

Establishing That Recorded Liabilities Are Correctly Stated

Since accounts payable are usually the major current liability on a balance sheet and are likely to involve more problems than most other liabilities, their verification is discussed first.

Accounts Payable. The problems in the verification of accounts payable stem from the fact that a large number of individual creditors are usually represented in the total figure for accounts payable. With one major exception, the procedures followed are quite similar to those suggested for accounts receivable. Confirmation of accounts payable balances is not required except when the auditor has cause to question the correctness of the accounts payable figure. On the other hand, it is quite common to seek the additional assurance to be gained by confirming accounts payable or by requesting vendors to send statements of the client's accounts directly to the auditor.

There are perhaps three reasons for the fact that confirmation of accounts payable is not a standard procedure required in all cases. The first is that external evidence which is likely to be quite reliable is available in support of the accounts payable figure. That evidence consists of invoices and statements received from vendors. The reader should recall that in the case of receivables most supporting evidence is likely to be created by employees of the client. A second reason is that under normal operations all accounts payable existing at the balance sheet date can be expected to be paid within a short time thereafter. The entries for such payments and the resulting paid checks form further evidence in support of the balance sheet figure for accounts payable. For receivables, however, some accounts may be slow in paying, and confirmations are the only possible substitute in the absence of evidence concerning payment of an account.

A third reason for not confirming accounts payable is the fact that the greatest risk relates to unrecorded liabilities, and there is no indication of where a confirmation should be sent in such cases. In the case of receivables, the risk of overstatement is greatest, and the necessary recording of fictitious amounts can be readily detected by confirmation of the receivables balances.

The procedures usually followed in the verification of the statement amount for accounts payable are presented below under appropriate headings.

Verification of control account entries. The postings to the vouchers payable control account for one or more months should be traced to the corresponding totals in the voucher register and check register, and to the source of any special journal entries, as a test of the validity of the entries and the balance of the account. The details of the cash disbursements record will be verified in connection with the cash work. If internal control is not satisfactory the voucher register should be footed and crossfooted, for the selected month or months, and entries should be selected for a test against source docu-

ments, consisting of vouchers supported by properly approved invoices, receiving memos, purchase orders, or other documents.

Cut-off. The verification of the cut-off of accounts payable has been partly covered in connection with the verification of the inventory cut-off. An additional procedure, in the form of an examination of transactions recorded subsequent to the balance sheet date, is discussed later in this chapter in connection with ascertaining the existence of any unrecorded liabilities. One additional step is usually advisable, however. If the auditor is in the client's office at or shortly after the balance sheet date he should attempt to ascertain whether any vendors' invoices are on hand which have not been recorded. He should rely on both inquiry and his own observations in reaching his conclusions.

Proof of accounts payable details. Since most businesses use a voucher system rather than an accounts payable ledger, the verification of accounts payable details may have to be made at the balance sheet date. The make-up of the unpaid voucher file changes from day to day, and it is usually difficult to reconstruct that file at a later date. There are, however, two possible alternatives to doing the work at the balance sheet date. One is to have the client prepare a list of the unpaid vouchers at the balance sheet date, with sufficient identifying information to make it possible to locate the vouchers at a later date. Another is to have the client list first in the check register for the following month those vouchers which had been recorded at the balance sheet date. Thus at any time the vouchers payable total can be reconstructed from the list of vouchers paid during the following month, plus the vouchers still in the unpaid file which were recorded prior to the close of the year.

Verification should consist of running a tape of the unpaid vouchers or proving the client's listing. When internal control is good and the client's listing is available, the footing of the list should be proven, but examination of supporting vouchers and invoices can be made on a test basis. Vouchers should bear evidence of having been recorded in the voucher register prior to the balance sheet date, but should not have been paid prior to that date. Supporting invoices should be originals, made out to the client, bear a recent date, and should give no indication of having already been paid. The amounts should, of course, agree with the amounts shown on the vouchers payable listing, and receiving memos should evidence that materials have been received. Any receiving memos dated after the balance sheet date should appear as reconciling items on the physical inventory reconciliation.

If the accounts payable details are to be verified some time after

the balance sheet date, each voucher should be carefully examined to be sure it was recorded before the balance sheet date and not paid until after that date.

The client's procedures may also include the proving of open items in the voucher register at the balance sheet date, but the auditor should not have to work with such information unless internal control is very weak or errors have occurred.

Review of vendors' statements. If the client has already checked out vendors' statements against its payables records, and if internal control is very good, a review of the statements for evidence that they have been reconciled should be adequate. Any unusual reconciling items should be noted and traced through to determine that any necessary adjustments have been made. If internal control is weak, or if the statements have not been checked out by the client, the larger unpaid amounts shown on the statements should be traced to the trial balance of accounts payable.

The liability for shipments in transit on which title has passed to the client is not usually reflected in the accounts, for reasons which are noted later. As the auditor reviews vendors' statements, however, he should list any such items, since if the amounts prove to be material they should be reflected in the accounts.

Confirmations. As stated earlier, confirmation of accounts payable balances with the vendors to whom the amounts are owed is not a required auditing procedure, except when vendors' statements are not on file and internal control is unsatisfactory, or where discrepancies appear to exist. Yet the procedure is quite extensively utilized, largely to gain additional assurance that accounts payable are correctly stated. Since the client's payables records seldom group together the amounts owing to each vendor, the most common confirmation technique is to ask the vendor to send a statement of the client's account directly to the auditor. A statement is also more satisfactory than a simple confirmation response because the statement provides adequate information to check out any differences. Vendors' records of receivables will usually permit the convenient preparation of such statements, and most requests are promptly honored because the vendor's self-interest is involved, both in terms of giving service to customers and in facilitating the collection of amounts owed.

Notes Payable. The auditor should ascertain that notes issued during the year were properly authorized, and he should trace the proceeds of large notes into the cash records and into the bank. If notes have been paid off during the year, the paid notes should be examined, and possibly the paid checks evidencing such payment should also be examined if internal control is weak. Interest expense for the

year should be reconciled with the amount of notes outstanding. Such a test may reveal that interest is being paid on notes which have not been recorded because the proceeds have been misappropriated. Any accrued interest payable at the balance sheet date should be verified by calculation.

Notes payable should always be confirmed, and a request should be made for a list of any collateral pledged to secure the notes. Confirmation is important because external evidence is not available in support of the figures, as it is in the case of accounts payable. Also, since fewer employees are normally involved in the issuance of a note than in the purchase of materials, internal control is of necessity weaker.

The standard bank confirmation form, illustrated in schedule $\frac{\text{A-2}}{1}$, includes a request for information on all direct obligations to the bank. The form should be sent to every bank with which the client has done business during the year, and the replies should be carefully examined for any indication that notes are outstanding. Information on such notes should be cross-referenced to the schedule of notes payable as shown on $\frac{\text{A-2}}{1}$ and AA.

Bonds and Mortgages Payable. The basic procedures for the verification of bonds and mortgages payable are about the same as those presented above for notes payable. Mortgages, of course, involve a lien on certain assets, and the auditor must be sure that the lien is clearly noted in the financial statements. Bonds may or may not involve a lien, a fact to be determined by examination of the trust indenture concerning the bonds.

Bonds are not confirmed with the actual holders, but with the trustee for the issue, and with the registrar if a separate registrar is named. The confirmation request should also ask for a statement showing whether all interest due has been paid. Since bonds will usually sell at a premium or discount, rather than at par, verification of the proceeds of sale is important to the verification of any premium or discount resulting from the sale. In verifying the balance of unamortized premium or discount, the auditor should determine that any amounts related to bonds retired or held in the treasury have been removed from the account.

Of utmost importance to the verification of bonds payable is the trust indenture under which the bonds are issued. The indenture should be closely studied by the auditor, and all pertinent facts should be summarized and placed in the permanent file. The following list suggests some of the more important matters which may be ascer-

tained from the indenture. Many of these matters, it should be noted, have a direct bearing on financial statements.

1. Descriptive title of the issue.
2. Maximum amount of bonds authorized.
3. Interest rate and dates.
4. Maturity date.
5. Date and price, if bonds may be called before maturity.
6. Name of trustee and registrar.
7. Possible restrictions on use of bond proceeds.
8. Assets pledged as security.
9. Any special obligations concerning pledged assets, such as carrying a minimum amount of insurance and making necessary repairs.
10. Restrictions on payment of dividends during the period the bonds are outstanding. (Such provisions usually state that only profits above a certain amount each year shall be available for the payment of dividends. A requirement may also be made that dividends can be paid only if working capital or the current ratio exceeds a certain figure.)
11. Convertibility provisions. (Such provisions will necessitate reserving shares of unissued stock to accommodate bondholders who may exercise the convertibility privilege.)
12. Provisions for repayment. (Some stated or calculated amount may be required to be paid into a sinking fund or used to retire bonds purchased on the open market.)
13. Name of trustee to whom sinking fund payments are to be made.
14. Restrictions on additional borrowing while the bonds are outstanding.

If the auditor finds that any provisions of the trust indenture have not been carried out or have been violated, notice should be given to both the client and the trustee, and appropriate comments should be made in the financial statements.

Consignment Accounts Payable. Amounts owing to consignors for merchandise sold should be verified by reference to the consignment agreement and to the client's records of consigned merchandise received, sold, and on hand. The quantities of consigned merchandise on hand should be verified during the taking of the physical inventory. The consignor may be asked to confirm the quantity of goods shipped to the client and any payments received, but the amount owed to the consignor for goods sold before the close of the year must be determined from the client's records.

Accrued Payroll. Some concerns actually figure the amount earned by each employee between the close of the last payroll period and the end of the fiscal year. The auditor should make sufficient tests of these calculations to assure himself that the work was properly done. He should also make an over-all test of the amount of accrued wages payable by allocating the total of the first payroll for the following period. The allocation between amounts earned prior to the close of the year and amounts earned in the following year can be made on the basis of the number of days involved.

Many concerns do not make a precise calculation of accrued payroll but merely estimate the amount by using the allocation method described above. This arrangement is satisfactory, but in reviewing the calculations the auditor should be satisfied that an allocation based on the number of days is sufficiently representative. Abnormal amounts of overtime occurring just before or just after the end of the year or excessive absences on a particular day could easily cause the allocation figure to be misstated. One quick way of checking for the possible existence of such distortions is to compare the total amount of the allocated payroll with payrolls immediately preceding and following that period.

Accrued Taxes. This section covers only payroll, sales, and property taxes. Income taxes are discussed in the succeeding section. Since each of the taxes mentioned is likely to be substantial, and since relatively few payments will be made during the year, the auditor customarily includes in his working papers an analysis of all transactions occurring during the year, as was done on schedule CC-2. Paid checks and copies of tax reports or paid tax bills can then be examined in support of the payments made.

Taxes accrued at the end of the year should be compared with figures for the previous year, and any substantial variations should be investigated. The auditor should also make an independent computation of the accrual, basing his figures on payrolls and sales since the last tax report. Property taxes, if accrued, are figured on a time basis, after giving consideration to changes in the tax rate or the assessed valuation.

Accrued taxes should be further substantiated by reviewing the first returns filed after the close of the year, to be sure that the accrued amount bears a reasonable relationship to the total amount paid.

Income Taxes Payable. Taxes on income are now one of the major taxes paid by successful corporations, and those taxes have a material effect on both balance sheets and income statements. To be able to express an informed opinion on a client's financial statements the independent accountant must therefore be well informed about our

highly complicated tax laws so that he can ascertain that a proper provision has been made for income taxes payable. Most public accountants are, of course, thoroughly familiar with the income tax laws because one of the principal services to their clients concerns income tax matters. In practically all small- and in most medium-sized audits the auditor is likely to be requested to prepare the client's income tax return. Larger concerns usually have well-trained tax people on their own staff and therefore often prepare their own tax returns. Even when the auditor does not prepare the client's tax return, tax knowledge is still important because the auditor must review the client's tax accrual to satisfy himself that balance sheet and income statement figures are fairly stated.

The income tax liability account should be analyzed, and paid checks should be examined as evidence that taxes for the previous year have been paid. The current year's tax provision should then be reviewed, making certain that gross revenues have been determined in conformance with the tax laws, that nondeductible expenses have been eliminated in figuring taxable net income, and that gains and losses of the current and prior years have been properly treated. As he is making this review the auditor should always be alert for any opportunity to effect a tax saving, even though he does not prepare the tax return. Suggested opportunities for tax saving are one of the finest stimulants to good client relationships. The auditor should also bring up any opportunities by which sound tax planning may aid in reducing future taxes. Many auditors encourage clients who do not employ a tax man on their staff to contact them at any time during the year when important contracts or financial transactions are contemplated, to permit the auditor to study the tax effect of the proposed action. Frequently a variation in the proposed plan can be made to effect substantial tax savings.

In a first audit the auditor should review all tax returns which have not yet been reviewed by a revenue agent, to insure that there have been no substantial underpayments of taxes due which would result in an additional liability to be shown. In repeat audits, the auditor should review any revenue agents' reports rendered since the previous year. Such reports show whether additional taxes are due or whether past returns have been satisfactorily closed.

State income taxes, while at a much lower rate, involve the same problems and verification procedures as do Federal income taxes. A complicating feature arises when a corporation earns its income in several states and is subject to income taxes in each of the states.

Tax Effect of Differences Between Accounting Income and Taxable Income. When differences exist between accounting income and

taxable income, failure to handle properly the provision for income taxes may cause distortion of the accounting income figure. For instance, if provision is made in the income statement for reconversion costs to be incurred after a specific contract is completed, those costs may not be deducted for tax purposes until they are actually incurred. Unless proper adjustments are made, net income in two different years may be distorted. In the year the provision is made, income taxes will be larger than would be expected in light of the reported income before taxes, and final net income would be understated. Conversely, in the year the expenses are incurred they will be charged against the account credited when the original provision was made and will thus have no effect on reported net income. Yet at the same time, those expenses will be deductible for tax purposes and will thus reduce income taxes and increase net income, even though the cause of the decrease has no relation to reported net income for that year.

The Committee on Accounting Procedure of the American Institute of Accountants has recommended a solution to the above situation. In the year the expense provision is made, the additional taxes that are payable because the provision is not deductible for tax purposes should be charged to a deferred tax expense account (which may be offset against the reserve provided for the future expenses). Then, in the year the expenditures are made, the deferred taxes can be charged against income, placing the total tax expense for the year in line with the reported net income before taxes.

A similar situation arises in the case of companies which have been granted certificates of necessity authorizing them to take accelerated amortization for tax purposes on newly constructed facilities which have been held to be vital to the defense of the United States. These certificates are largely intended to encourage the construction of such facilities, and give the right to amortize the cost of the facilities over a five-year period for tax purposes, even though the actual useful life of the facilities may be much longer. Many concerns are realistically basing book depreciation on the true useful life of the assets, while taking the accelerated amortization for tax purposes. The result is that for the first five years income taxes payable are substantially less than would be expected based on reported net income in the income statement, and if these reduced taxes are reported as the tax expense in those years, net income will be artificially inflated. After the five-year period the result will be reversed. Since the full cost of the emergency facilities will have been deducted for tax purposes, no further deductions will be allowed, although normal depreciation will still be shown as an expense in the income statement. Thus during this second period the income taxes payable will be larger than

would appear warranted based on net income before taxes, and net income will be understated.

The means of avoiding such distortion is to provide for income tax expense during the first five years based on the deduction of normal depreciation. The excess of this amount over the taxes actually payable is allowed to accumulate in a tax liability account. This credit balance will then be wiped out gradually after the five-year period by the excess of the taxes actually paid over the amount charged as an expense.

The same type of problem occurs when an extraordinary, nonrecurring income or expense is taken to retained earnings for statement purposes but enters into the income tax computation for that year. The taxes related to the retained earnings entry should be offset against the retained earnings amount and not shown as tax expense in the income statement. The general rule applied in both this and the previous illustrations is that the tax effect of an item should be treated in the same way as the item itself. Only in this manner can material distortions of net income be avoided.

Liability for Amounts Withheld from Employees. Payroll deductions have become almost legion, and accounting for the deductions has placed a substantial burden on modern business. Included are deductions for income taxes withheld, F.I.C.A. taxes, union dues, savings bonds, company savings plans, credit union savings or loan repayments, charitable contributions, pension plans, and a wide variety of insurance plans. Any withheld amounts which have not been remitted at the balance sheet date are a liability and must be verified by the auditor. Tests made in conjunction with the audit of payrolls should indicate whether deductions have been authorized and are properly computed. Deductions not yet remitted at the balance sheet date should be traced to payroll totals, and to reports and paid checks covering their subsequent remittance to the proper parties.

Deferred Income. If income has been received in advance the auditor must satisfy himself that the full amount received has been treated originally as a deferred credit, and that the correct amounts are transferred to income as the income is earned. The actual method of verification will vary with each situation and the type of records kept. For instance, a motion picture theater may sell special coupon admission books. The books should be serially numbered, thus enabling the auditor to determine how many were sold and whether the proceeds were properly accounted for. Debits would be made to the liability account for the coupons turned in each day, and the auditor should test a few of those entries against the supporting coupons.

As a rule, not all the coupons will be redeemed, and consequently

part of the deferred income over and above the amount relating to coupons redeemed can be taken into current operations. If separate accounts are maintained for coupon books sold during each year, the balances of accounts which are one or two years old will readily indicate about what proportion of the tickets will be redeemed. Provision can then be made each year to take into income the value of coupons not expected to be redeemed. The auditor should, of course, review such calculations to be sure they are being handled correctly.

In some situations the problem may be considerably more complicated, as in the audit of a magazine publisher who accepts one-, two-, three-, and five-year subscriptions. The solution lies in a generous use by the auditor of ingenuity, common sense, and knowledge of the client's accounting records.

Contingent Liabilities. Many different types of items fall under the heading of contingent liabilities, representing liabilities which may or may not materialize, and liabilities which are indeterminate in amount. The classification includes such items as public liability claims, patent infringement claims, liability in connection with notes receivable discounted or accommodation endorsements, costs to be incurred under product guarantees, possible future payments in connection with long-term leases or purchase commitments, additional tax assessments, and possible refunds to be made based on contract price redetermination or renegotiation.

Claims subject to litigation. The client's attorney is the best source of information about existing or pending litigation. He should be requested to reply in writing stating any litigation or other disputes of which he is aware, and indicating the extent of possible losses which might result. In providing for such losses in the accounts, allowance must be made for any recoveries to be expected on insurance carried against such losses.

Presentation in the financial statements of the contingent liability concerning claims being litigated often involves a severe straining of auditor-client relationships. The client may be strongly opposed to admitting any possible loss because he may feel that the admission might prejudice his case, and he might even object to any mention of the existence of the claim in the financial statements. The auditor, on the other hand, must be satisfied that the statements give full disclosure of all pertinent facts. If full disclosure is not made, he would ordinarily be forced to qualify or withhold his opinion on the financial statements.

One method of presentation is to mention the existence and amount of the claim by footnote to the balance sheet, supplemented by a statement as to the attorney's opinion if he believes no actual

liability will result or if he believes that final settlement or judgment will involve a figure substantially below the amount of the claim. On the other hand, if it is likely that ultimate disposition of the claim will be unfavorable to the client, the loss and liability should be reflected in the accounts rather than by footnote.

Notes receivable discounted and accommodation endorsements. The contingent liability on any notes receivable discounted with the client's bank will be reported by the bank on the Standard Bank Confirmation form used to confirm the balance on deposit with the bank. As a further check on such liability, the auditor should review credits to the notes receivable account for any indications that notes may have been discounted rather than collected at maturity.

Other than through inquiry and review of the minutes of directors' meetings, the bank confirmation form presents about the only opportunity for the auditor to learn of the existence of any accommodation endorsements.

Service guarantees. Many products are sold under a guarantee of free service or replacement during a stated period. Costs likely to be incurred under such guarantees should be anticipated in the year the product is sold rather than recorded as an expense when any service or replacement costs may be incurred. Experience will usually suggest the relationship between such estimated future expenses and sales for the year. The auditor should review the client's calculation of the year's provision for the future expenses and the basis for the calculation. He should also make tests of the actual expenses charged against the estimated liability account to satisfy himself that only appropriate items are being charged. Any substantial month-to-month variation in such charges should be carefully investigated. As a final test, the auditor should note whether the balance of the liability account varies in proper relationship to sales of the guaranteed product. An increasing balance during a period of constant sales would suggest that the provision is too high. A decreasing balance in the face of increasing sales should suggest the opposite conclusion.

Model changes, new products, or a substitution of new parts or materials should cause the auditor to question whether past experience should still be used as the basis for providing for future expenses under guarantees.

Sale-leaseback agreements and other long-term leases. Long-term leases can be expected to involve a substantial liability for future rent payments, and depending on economic trends, may become either advantageous or burdensome to the lessee. As a consequence, the existence of such agreements, if material, should be reported in

the financial statements along with an indication of the amounts of the annual payments and the period of time the lease is to run.

The urgent need for additional working capital to finance expanded operations and increased costs has resulted in numerous sale-leaseback transactions, which have in turn increased the need for adequate disclosure. When such transactions occur, full disclosure of the terms of the agreement should be made in the year of sale, in addition to the customary reference to the obligation concerning future rentals to be paid.

Ascertaining the Existence of Unrecorded Liabilities

The auditor is likely to employ many procedures in seeking out the possible existence of unrecorded liabilities. The more commonly used procedures are suggested here, but the list should not be taken to be all inclusive. Some of the procedures have already been mentioned at other points, but they are restated to show that they have a bearing on the possible disclosure of unrecorded liabilities.

Review of Subsequent Transactions. The most important procedure in the auditor's search for unrecorded liabilities will usually be his review of transactions recorded subsequent to the balance sheet date. The procedure is based on the assumption that all liabilities will eventually be reflected in the accounts, either through payment or by other means. Hindsight thus becomes a major element in the auditor's examination.

The principal records which should be subjected to such a review are the cash disbursements record, the voucher register, and the general journal. Since the first two records overlap to a considerable extent, care must be taken to avoid duplication in examining those records. Also, many of the entries will already have been reviewed in connection with the verification of the inventory cut-off and the proof of the accounts payable balance.

The typical approach is to begin with voucher register entries, selecting all major amounts and a few smaller amounts from entries recorded after the balance sheet date. The supporting vouchers and invoices should then be pulled to permit the auditor to determine whether any liability existed at the balance sheet date. Full information should be noted in the working papers concerning any liabilities disclosed in this manner, as was done on schedule BB-2.

Next, the cash disbursements record should be reviewed. All major disbursements should represent the payment of vouchers included in the year-end balance of accounts payable, or vouchers reviewed in connection with the examination of voucher register entries made

after the balance sheet date. Investigation of any disbursements not previously covered in such examinations is likely to reveal an unrecorded liability.

The review of the general journal involves no special procedures, but each entry should be carefully studied for any hint that a year-end liability may be involved.

Materiality. Unrecorded liabilities revealed by the above procedures may vary in materiality even though amounts may be identical. The three items shown below illustrate this phenomenon:

Invoice Date	*Date Goods or Services Received*	*Date Recorded in Records*	*Freight Terms*	*Description*	*Amount*
12/29	12/31	1/3	F.O.B. Shipping Point	Materials	$500
12/28	1/3	1/3	F.O.B. Shipping Point	Materials	500
12/30	12/29	1/3	.....	Machinery repairs	500

All three items involve liabilities not recorded at December 31. Further investigation of the first item reveals that it was not included in the inventory cut-off reconciliation figure for unmatched receiving memos, so that it has the effect of understating either purchases or, under the perpetual inventory method, the inventory variation. These errors would in turn cause an overstatement of income. The machinery repair item also understates an expense and overstates income. The other item for the purchase of materials represents a liability for merchandise in transit, based on the usual assumption that invoices are dated the day that the materials are shipped. An unrecorded asset is, therefore, also involved because title would have passed on the date of shipment, and there is no effect on net income.

Any variation in the materiality of the three items is based not on the amounts of the unrecorded credits to accounts payable, since all are identical in that respect, but on the effect of the unrecorded debits. The first and third items are more material for the following reasons:

1. They affect net income whereas the second item affects assets, and net income is usually the most important figure on the financial statements.
2. The effect on net income of each of these items will be proportionally greater than the effect on total assets by the second item, because invariably the net income figure will be smaller than the figure for total assets.
3. Since the unrecorded liability for the second item is offset by an unrecorded asset, items 1 and 3 will cause a greater distortion of the very important current ratio.

The matter of materiality might be further refined by considering an unrecorded liability for the purchase of plant equipment costing $500. This item, since it does not affect net income, would be less material than items 1 and 3, but it would be more material than item 2 because of the greater distortion of the current ratio.

In most cases when unrecorded liabilities are found, they will involve merchandise in transit, since the normal accounting routines do not provide for recognition of such liabilities. As suggested by the preceding discussion, such unrecorded liabilities will have only a nominal effect on the financial statements unless relatively large amounts are involved. The result is that adjustment of the statements to reflect such items is often waived as not materially affecting the statements. Many a junior accountant, on being assigned for the first time to the search for unrecorded liabilities, has discovered thousands of dollars of unrecorded liabilities for merchandise in transit. His sense of accomplishment in having detected a misstatement of such a large amount in the client's figures is often rudely dissipated by the senior accountant's decision to pass any adjustment of the amount on the grounds of immateriality!

If unrecorded liabilities affect net income, their relative materiality is partly offset by the effect of income taxes in the case of a corporation. A $10,000 understatement of expense would cause income to be overstated by only about $5,000. With corporate income tax rates at about 50 per cent, the decrease of $10,000 in income before taxes would be offset by about a $5,000 decrease in income taxes, leaving only a $5,000 decrease in net income after taxes. It might appear that the client would be anxious to make such an adjustment, and if so the auditor should certainly oblige. On the other hand, unless tax rates change, the adjustment will merely cause a shift in taxes between two years, and the client may prefer not to re-open his records for the adjustment if the auditor concludes that the effect is not material.

Confirmations. The Standard Bank Confirmation form should be sent to all banks with which the client has done business during the year. The replies will list any direct or contingent liabilities to those banks, and an opportunity therefore exists to detect any liabilities not recorded in the client's records. A similar opportunity exists for disclosing unrecorded liabilities through confirmation of accounts payable or by analysis of vendors' statements. Although the requests for confirmation or a statement of the account are sent primarily to vendors with whom there is a large year-end balance, the auditor should review purchasing activity for the year and send requests to

any vendors with whom a substantial volume of business was done during the year, even though there may be no year-end balance.

Consignment Sales. The review of subsequent transactions may reveal a payment to a consignor for goods sold prior to the end of the year. The auditor should make the necessary adjustment if the liability was not recorded. The auditor should also examine the inventory record of consigned goods for the purpose of noting whether any goods have been sold but no liability recorded.

Information from Client's Attorney. Most businesses of medium size or above retain counsel to handle any legal matters which may arise. The attorney should be requested to notify the auditor, in writing, of any lawsuits or claims pending against the client, and he should also be requested to state his opinion of the probable outcome of such matters. The request to the attorney should also ask for information on any other liabilities of an unusual nature of which he has notice and for the amount of any fees or reimbursable expenses which may be due from the client.

If the client does not engage an attorney on a retainer basis, a clue to the possible existence of any pending legal matters may be gained from an analysis of any expense accounts to which legal fees may be charged. The payment of any such fees should be a signal for the auditor to investigate the situation to determine whether any liability exists or may be likely to result.

Client's Representations. Until liabilities are made a matter of record, information about them may be solely within the knowledge of officers of a business. Since those officers are primarily responsible for the information in the financial statements of the business, it is both proper and customary to ask the officers for any information about possible unrecorded liabilities. Any liabilities known to them but which through oversight had not been recorded would be brought to light in this manner. The reader should not assume, however, that a statement from the officers relieves the auditor of any responsibility for discovering unrecorded liabilities. There is always a possibility that information may be intentionally withheld from the auditor or unintentionally overlooked, so the auditor must still make all the usual tests, thus indicating the reliability and accuracy of the representations made by the client's officers.

To avoid any possibility of error or misunderstanding, the representations should be made in writing. A possible form for such a representation is given below. Note the list of contingent liabilities which is included to assist the officers in recalling any such liabilities which might exist.

Date _____

To (name of auditor):

To the best of our knowledge all known or ascertainable direct liabilities of the company at (date) have been recorded in the accounts at that date, with the exception of minor items which are carried forward from month to month in ordinary operations.

The company had no material contingent liabilities that were not provided for in the accounts at (date), except as set forth below:

Kind of Contingent Liability	*Amount if Determinable*
Upon customers' or other notes that were discounted, sold, or otherwise transferred	
Upon drafts negotiated	
For Federal or state income taxes	
For accommodation endorsements	
For guarantees of notes or securities of other issuers	
For guarantees of company products or services	
Under repurchase agreements	
Upon leases	
Under contracts or purchase agreements	
Under profit sharing arrangements	
Under pending lawsuits	
For all other contingent liabilities of any nature	

The company has entered into purchase commitments that approximated $_____ at (date), which have arisen in the ordinary course of operations and contain no unusual amounts.

(Signed)

_____

(President or other principal officer)

_____

(Treasurer or chief financial officer)

_____

(Controller or chief accounting officer)

Revenue Agents' Reports. The auditor should always ascertain whether an agent of the Internal Revenue Service has examined and closed any income tax returns during the period since the auditor was last in the client's office. If any returns have been examined, the agent's report should be reviewed to see whether any additional taxes have been assessed.

Interest Expense. A reconciliation should be made between interest expense and the amount of interest-bearing obligations outstanding during the year. There is always a possibility that interest is being

paid on an unrecorded note, the proceeds of which have been appropriated by some officer or employee.

Notes and Bonds. If serially numbered notes or bonds are issued by the client, all serial numbers should be accounted for in order to detect any instruments which have been issued but not recorded. When notes or bonds are shown by the records to have been liquidated, the paid documents should be inspected by the auditor. The absence of the document evidencing the original liability would suggest that the recorded payment may have been for some other purpose and that the original obligation is still outstanding. In cases where there may be any question, the paid check can be examined as further evidence of what actually happened to any payments made.

Review of Cash Receipts Record. The auditor should review cash receipts for the audit period for any large receipts. Such receipts should be traced into the accounts to verify that the corresponding credit has been properly recorded, regardless of whether the cash represents the proceeds of a note or loan, or the result of some other form of transaction.

Receiving Records. All merchandise received prior to the balance sheet date should either be paid for or reflected in the total for accounts payable. Only in special cases will it be necessary to make a special review of the receiving records, however, since the verification of the inventory cut-off and the review of subsequent transactions should reveal any significant amounts of materials which have been received but not recorded as a liability.

Review of Directors' and Stockholders' Minutes. Minutes of directors' and stockholders' meetings may contain authorizations to borrow money, reference to contracts which may obligate the company, or mention of claims or lawsuits pending against the company. As a consequence, such minutes should be carefully read and pertinent information abstracted in the working papers to permit subsequent comparison with ledger entries concerning the actions taken and any resulting liabilities.

Review of Operations. The client's operations should be studied for any types of transactions which might involve liabilities not recorded at the balance sheet date. As an obvious illustration, any company with a weekly payroll is almost certain to have a liability at the end of the year for accrued wages. Other liabilities whose existence should become apparent with a thorough understanding of the client's operations would include container deposits, accrued royalties, accrued interest payable, service guarantees, accrued commissions, consignment accounts payable, and reimbursement for expenditures made by officers or employees.

Expense Comparisons. A month-to-month comparison of expenses which revealed reduced expenses in the final month of the year might suggest that there is a liability for unpaid expenses.

Knowledge of Tax Laws. Even though the auditor cannot be an expert in all possible taxes to which the client might be subject, he should at least be familiar with the principal types of taxes and should note that all such taxes have been paid or accrued. Among the more common taxes are city, state, and Federal income taxes, gross earnings taxes, payroll taxes, excise taxes, sales taxes, stock transfer taxes, and franchise taxes.

Review of Company Contracts. All major contracts entered into by the client should be reviewed by the auditor for any direct or contingent liabilities that may have been created. Labor contracts, especially, should be reviewed, since they may contain provisions obligating the client for insurance benefits, pension payments, or vacation pay based on the number of months worked in a given period with payment to be made even if an employee leaves the company.

Workmen's Compensation Insurance. As noted in an earlier chapter, compensation insurance is usually handled by making an advance deposit based on estimated payrolls, with either a refund or additional payment being made later based on actual payrolls. When the policy year terminates on or shortly after the balance sheet date, there is always a possibility that actual payrolls have exceeded the original estimate and that an additional premium may be due.

Timing of the Examination of Liabilities

When internal control is satisfactory, accounts payable can be verified on much the same basis as accounts receivable. That is, most of the work can be done a month or two before the balance sheet date, supplemented by a review of transactions occurring between the preliminary and balance sheet dates. However, because such transactions are so variable, and because financial position or operating results can be so readily altered through failure to record transactions creating a liability, many accountants prefer to do all work on liabilities after the balance sheet date. In all cases, of course, the vital review of subsequent transactions must be made after the balance sheet date.

There are, however, a few procedures which can be readily carried out on a preliminary basis in most instances. These would include the review of internal control, reading of important contracts, and verification of major transactions involving the creation or liquidation of liabilities.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of liabilities in *Case Studies in Auditing Procedure*, Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (A Steel Fabricator)

Notes payable, bank	$ 50,000
Accounts payable, trade	75,000
Accounts payable, other	12,000
Accrued Federal and state taxes	36,000
Total current liabilities	173,000
Long-term mortgage notes	20,000
Total current assets	453,000
Total assets	565,000

The client uses an open line voucher register system.* Invoices are approved by the purchasing agent after he has received informal notice of the receipt of materials and noted the information on his open purchase orders. The purchasing agent also approves the prices charged. Invoice extensions are checked by the assistant secretary, and then the invoices are given to the bookkeeper for entry and payment.

The accounts for notes payable to banks were analyzed during each quarterly examination, and balances due and collateral pledged were confirmed. Other notes payable and collateral were confirmed only at the end of the year.

Each quarter, trial balances of accounts payable were compared with open items in the voucher register. Vendors' statements, if available, were reconciled against the trial balance. Larger items entered in the voucher register subsequent to the quarterly audit date were checked for receiving date against the purchasing agent's unfilled order records. Invoices held by the purchasing agent and assistant secretary were reviewed, and if material amounts of those invoices applied to the period under audit, adjustment was made. At the year end, confirmation was requested on all accounts for which vendors' statements were not available.

Accrued compensation is based on an apportionment of the payroll for the week in which the period ends, based on the number of working days. The auditor computed the accrual. At the end of the fiscal year the weekly payroll involved was verified by the auditor.

Social security taxes were verified by applying the tax rates to the total

* Under this plan, a column in the voucher register is used to record the dates on which the various vouchers have been paid. The absence of a date on an "open line" indicates that the voucher has not been paid.

compensation for each quarter as shown by the accrued payroll account, after eliminating nontaxable compensation. Federal withholding taxes were tested in connection with the verification of payrolls.

An analysis was made of the accrued Federal and state tax accounts. The auditor computed the Federal and state income tax liability and estimated the provision for state capital stock taxes.

The correspondence file with the company's counsel was reviewed for any reference to possible contingent liabilities. Inquiry was also made of responsible officers concerning any contingent liabilities of which they were aware. State tax settlements and internal revenue agents' reports were reviewed. A state tax lien certificate was obtained from state authorities.

Case B (Loading and Hauling Equipment Manufacturer)

Notes payable, bank	$1,200,000
Accounts payable	274,000
Accrued expenses	117,000
Provision for Federal taxes on income and renegotiation of war contract	251,000
Total current liabilities	1,842,000
Total current assets	2,491,000
Total assets	3,438,000

The case study makes no reference to the internal control concerning liabilities. The bank loan represents funds borrowed to purchase the land and buildings formerly occupied under lease. The company had plans to issue 4¼ per cent fifteen-year bonds to repay the major portion of notes payable. (These plans would warrant mention by footnote to the financial statements.)

The notes payable were verified by confirmation, and interest expense and accrued interest in connection with the notes were verified by computation.

A list of accounts payable at the balance sheet date was obtained from the client and the details compared with the voucher register and creditors' statements. Positive confirmations were requested on accounts in excess of $5,000 for which no statements were available. The list was footed and the total compared with the general ledger account. Items in excess of $2,000 were traced through to payment, note being made of any significant difference between the liability as stated and its eventual payment. Any items not paid by the conclusion of the audit were investigated to ascertain the reason for the delay. Invoices and other entries to accounts payable subsequent to the balance sheet date were reviewed for possible unrecorded liabilities. The file of open purchase orders and contracts at the year end was reviewed for any unusual items.

Royalties payable, withholding taxes, and savings bond deductions were reclassified and shown as separate payables on the balance sheet. Royalty contracts were examined and the royalty computations checked. Credits to the withholding tax account were compared with amounts appearing on payroll summaries. Debits were traced to the records of disbursements. Total debits and total credits were reconciled with withholding tax returns. Balances shown on employees' savings bonds deduction cards were tape-listed and the total compared with the amount reclassified in the balance sheet. Customers' advance payments, reclassified from accounts receivable, were verified in connection with accounts receivable.

Accrued salaries and wages was made up of three related items. Salaries and wages payable for the week ended December 28 were verified in connection with the audit of that two-week payroll made as a part of the examination of expenses. Accrued salaries and wages for December 30 and 31 were checked to a listing of actual hours worked by each employee. The hours were tested to timecards, extensions were scanned, and the list was footed. A provision for retroactive wages payable on settlement of a union agreement was verified by reference to subsequent payments made. The agreement had been signed during the auditor's examination.

Property and social security tax accounts were analyzed. The accrual for real estate taxes was verified against the proration sheet upon which the purchase price of the real estate was based. The personal property tax accrual was compared with the tax bill for the prior year. Total wages and salaries as shown by Federal withholding and social security tax reports were reconciled with wages and salaries per books. Tax payments were traced to supporting tax returns or tax bills. Tax provisions for the year were reconciled with charges to the expense accounts.

The provision for Federal taxes on income was tested by adjusting net profit for the year to a tax basis and applying current tax rates to that figure. Revenue agents' reports had been rendered for all except the past two years, and these reports were reviewed for possible additional assessments.

The provision for renegotiation was carried over from the previous year, and had been verified at that time. When the renegotiation proceedings were later completed, no refund was required.

During the entire audit the auditor remained alert to the possible existence of any contingent liabilities. In addition, representation was received from the client's attorneys concerning any such liabilities known to them.

The above verification of liabilities required 8 per cent of the total audit time. The preparation of the client's tax return by the tax department of the auditing firm required an additional 3 per cent of the total audit time.

Case C (A Department Store)

Trade accounts payable	$ 500,000
Accrued salaries, commissions, and bonuses	100,000
Other liabilities	100,000
Federal taxes on income	600,000
Total current liabilities	1,300,000
Total current assets	4,300,000
Total assets	5,600,000

Accounts payable are handled by a voucher system with no permanent ledger. Invoices are posted simultaneously to the purchase journal and to a voucher, in duplicate, for each vendor. The vouchers then remain in a tray file until they are to be paid. At that time the check portion of each voucher is completed and an entry made in the cash disbursements record.

The examination of vouchers payable was deferred until all January purchases had been paid for in February. No February vouchers were recorded during this period. Any open debits or credits remaining at the end of this period were totaled, and to this figure the February payments of January purchases were added to obtain a figure to balance against the accounts payable control at January 31.

The check register for the period from February 1 to the closing date for payment of January invoices was footed by the auditor, and 5 per cent of the duplicate check copies were compared with the check register. Invoices and other supporting data to these duplicate checks were then examined to be sure that all dates were prior to February 1. The trial balance of items remaining unpaid was footed and verified by comparing 25 per cent of the items with the unpaid invoices on file. The total of this trial balance, plus the items paid in February, was then balanced with the accounts payable control. Debit balances in excess of $500 were reviewed to ascertain their collectibility and the possible need to provide for losses. These balances were reclassified as receivables.

The client prepared lists of merchandise received without invoices, merchandise received but not orderchecked, and invoices not entered in the purchase journal at January 31. The auditor ascertained that proper adjustments had been made to reflect these items in accounts payable. To verify the cut-off, all invoices in excess of $500 entered in the purchase journal during the first half of February were listed and traced to underlying data to establish that the invoices were reflected in the proper period.

The client prepared an analysis of all entries to the general ledger accounts payable control for the year. This analysis was scrutinized to determine that all entries, particularly those in the last month, appeared reasonable. Any fluctuations in the monthly credits to the account not in accord with normal seasonal variations were to be investigated and the explanation noted. Cash payments were similarly scrutinized, noting also that payments for one month bore a reasonable relation to purchases of

the previous month, since an effort was made to pay promptly to obtain cash discounts. Journal entries of substantial amount were examined to determine that they did not represent manipulations designed to cover defalcations.

Confirmations were obtained on balances due to or from owners of leased departments, and on the liability to delivery service companies for deliveries prior to January 31.

Disbursements for the period following January 31 were scrutinized for payments which might represent unrecorded liabilities.

Accrued wages and salaries at January 31 were checked by reference to the payroll following January 31 and by noting the reasonableness of the client's method of computation. The provision for buyers' bonuses and other additional compensation was checked by reference to compensation agreements, minutes of directors' meetings, and other sources. Arrangements for selling commissions were determined, and the accrual for that figure was checked.

The adequacy of the accrual for vacation compensation was reviewed. Vacations earned since the previous May 1 but not taken at January 31 were provided for at a rate developed from past experience, and the application of this rate to payroll totals was verified.

Changes in the liability account for Federal taxes on income were traced to supporting data. The client's accrual for taxes for the current year was checked against the auditor's computation of the tax liability. The status of taxes for years still open was reviewed.

Other taxes were verified by examining returns filed during the year and by noting in a general way that the figures were compiled in conformity with regulations. For each type of tax, supporting data for one of the returns filed during the year were examined. Taxes accrued at January 31 were reviewed to determine that they were computed on the same basis on which the returns were filed. Correspondence with taxing authorities as to the examination of returns was reviewed, and total expense charges for the year were related to figures determined by the review of taxes.

Accrued liabilities for professional fees, traveling expenses, utilities, and other items were checked by the auditor. The trial balance of customers' deposits, advance payments, and credit balances was footed, and 5 per cent of the items were traced to ledger cards or other supporting data.

Any liability for dividends declared but not paid was to be shown separately. Dividends on preferred stock, if in arrears, were to be noted on the balance sheet.

A general review for contingent liabilities was made, and amounts were estimated if possible. The client was asked to represent in a liability letter that all liabilities had been recorded and to state any known contingent liabilities.

Machine Products Co.
Note Payable

12/31/56

Payee	Date	Due	Interest Rate	Principal Amount	Accrued Interest
Farmers' Natl Bank n	11/1/56 n	5/1/57 n	5% n	100,000.00 n to B5/2	833.33 ✓ to CC

n O.K. per bank confirmation A-2/1
✓ Computation verified

Note authorized by Board of Directors 10/10/56 per X.X. Proceeds were traced to cash receipts record, 11/1/56.

Note to Farmers' National Bank for $800,000 outstanding at 12/31/55 was paid on 5/15/56 out of proceeds of sale of additional shares of stock. Examined paid note and paid check in support of payment.

Tie-in to interest expense

Quarterly interest payments at 5% on note due 5/15/56

2/15/56	800,000 X 5% X 3/12 =	10,000
5/15/56	do	10,000
		20,000
Less interest accrued at 12/31/55		5,000
Interest for 1956 on $800,000 note		15,000
Interest for 1956 on $100,000 note dated 11/1/56 (above)		833.33
		15,833.33
		to 50

Machine Products Co. BB

Accounts Payable - Summary

J.A.S. 1/15/57

12/31/56

	Index	Final 12/31/55	Per Books 12/31/56	adjustments and Reclassifications (Dr)-Cr	Final 12/31/56
Accounts payable	BB-1	30692528	41588121		41588121
Accts payable-other					
Income Tax withheld	BB-3	3063145	3969431		3969431
F.O.A.B. - Employee	CC-2	1012687	1071266		1071266
Other p/c payable		—	—	(3) 572184	572184
Customers' Credit Balances		1240123	—	(10) 1497623	1497623
Total other pay.		5315955	5040697	2069807	7110504

to B/S-L

Machine Products Co.
Accounts Payable

J.A.S
1/2/57

12/31/56

.00T	
345.35	∿
7,645.54	∿
1,696.25	∿
4,875.36	∿
96 3.57	
6,764.88	∿
15,744.30	∿
7,558.53	∿
45,784.27	∿
22,574.68	∿
45 4.48	
6,056.84	∿
1,021.55	∿
20,337.58	∿
14 2.72	
77 4.22	∿
2,546.52	∿
2,684.68	∿
34 2.64	
38.64	∿
340,777.78	∿
2,375.43	∿
87 4.79	
6,486.35	∿
392,327.33	S
364.83	✓
1,575.31	✓
4,046.63	✓
88 4.48	✓
2,004.60	✓
78 4.52	✓
2,687.36	✓
1,762.35	✓
463.12	✓
5,730.13	✓
56.12	✓
587.68	✓
2,606.75	✓
415,881.21	T

to BB tape prepared from client's list of open vouchers and open receiving memos.

Vendors' statements from 20 principal suppliers were reviewed. The statements had been checked out by the chief accountant and we verified all reconciling items, none of which involved unrecorded liabilities. Balances shown on above statements totaled $304,962.15, or approximately 75% of total payable. Statements were available from all major suppliers with whom the company had done business during the year.

No confirmations were requested in view of the good internal control and the fact that the company reconciled all statements received from vendors.

Total vouchers payable

Unmatched receiving memos at 12/31/56, liability recorded by company journal entry

Total vouchers payable, per control at 12/31/56

∿ Invoices and receiving memos examined in support of all items over $1,000 and 25% of items under $1,000. No exceptions noted.

✓ Unmatched receiving memos examined and disposition traced to entry in following year.

See BB-2 for search for unrecorded liabilities.

Machine Products Co.
Search for Unrecorded Liabilities

WKW
2/15/57

12/31/56

Voucher Number	Amount	Date Entered in Voucher Register	Invoice Date	Date Goods Shipped	Date Goods Received	Freight Terms
23659	6253 91	1/7	12/29	12/29	1/3	F.O.B. Sh. Pt.
23704	1762 35	1/10 ①	12/5	12/5	12/10	" " "
23715	150 00	1/11	12/31	②	②	—
23794	5730 13	1/12	12/28	12/28	12/31	F.O.B. Sh. Pt.
23820	9248 63	1/12	1/5 ③	12/5	12/7	" " "
23915	356 52	1/13	12/30	12/30	1/4	" " "
24106	4046 63	1/13	12/31	12/26	12/29	" " "
24110	2004 60	1/13	1/2	12/30	12/31	" " "
24123	2687 36	1/13	12/29	12/29	12/31	F.O.B. Dest.
24131	571 38	1/14	1/10	Water consumed 11/26 to 12/26.		
24368	1575 31	1/18	12/27	12/27	12/28	Prepaid

The items shown above were disclosed by the following tests for unrecorded liabilities:

All voucher register entries in the month of January, 1957, in excess of $1,000 were traced to supporting invoices and receiving memos.

25 entries for amounts less than $1,000 were selected at random and traced to invoices and receiving memos.

Voucher register entries for the period 2/1/57 to 2/15/57 were reviewed for any unusual items, which were then fully investigated.

The file of unmatched invoices and the file of approved invoices awaiting payment at 2/15/57 were reviewed for possible unrecorded liabilities at 12/31/56. None were found.

For the period from 1/1/57 to 2/15/57 the cash disbursements record and the general journal were reviewed for material items applicable to 1956 but not recorded. None were found.

Included in Unmatched Receiving Memos (see T313-1)	Adjustment Needed-Merchandise in Transit	Expense	
	6253.91		
1762.35			
		150.00	
5730.13			
	9248.63		
	3565.2		
4046.63			
2004.60			
2689.36			
		④ 571.38	
1525.31			
17806.38	15859.06	721.38	

adjustment passed - items not material
g.a. 5

① Delay in entering resulted from loss of invoice. Invoice supporting the voucher marked "Duplicate".

② Repairs made to sidewalk, work completed 12/18.

③ Vendor gave 30 day delayed billing on these items. Goods were accepted before needed to accommodate vendor. Client did not include in unmatched receiving memos nor in physical inventory.

④ The company does not accrue its water bill but merely charges expense for the month the bill is received. Consumption is relatively constant throughout the year.

BB-

Machine Products Co.
Federal Income Tax Withheld

J.A. S
1/12/5

12/31/56

Balance 12/31/56 39,694.31
To BB

The above figure, representing taxes withheld during December, was traced to the individual payroll totals making up that amount. The paid check covering remittance of the above amount to the Federal Reserve Bank of Kansas City was examined.

Withholding tax deductions were tested in connection with our detailed test of payroll records, per 20-1.

Machine Products Co. CC

Accrued Liabilities

J.A.S.
1/15/57

	Index	12/31/55 Final	12/31/56 Per Books	Adjustments and Reclassifications (Dr) - Cr	12/31/56 Final
Accrued factory payroll	CC-1	30418 61	30754 29		30754 29
Accrued payroll taxes					
FOAB - Employer	CC-2	10126 87	10712 66		10712 66
Unemp. Comp. - State	CC-2	5372 49	5586 37		5586 37
Unemp. Comp. - Fed.	CC-2	8746 88	8903 24		8903 24
Accrued Interest pay.	AA	5000 00	833 33		833 33
		59664 85	56789 89		56789 89

to B/S-L

Machine Products Co.
Accrued Payroll

J.A.S
1/12/5

12/31/56

Accrued factory payroll at 12/31/56	30754.29 to CC

Office and executive payrolls were paid 12/31. Factory payroll for pay week ended Wednesday, 12/28 was paid Friday, 12/30. Company figured actual wages earned on Thursday and Friday, 12/29 and 12/30, and these records were reviewed by us. Accrual appears O.K. based on following overall check:

Total payroll W/E Wed. 1/4, paid Fri., 1/6	76468.25
2/5 of above amount applicable to 1956	30587.30
Actual accrual per company	30754.29
Difference - not material	166.99

Machine Products Co.
Accrued Payroll Taxes

J.A.S 1/13/57

12/31/56

	Payroll Taxes			
	F.O.A.B.		Unemployment Comp	
	Employer	Employee	State	Federal
Balance 12/31/55	10 12687	10 12687	5 37249	8 74688
Accrued 1956 (Total credits)	70279 88	70279 88	80129 04	8 90324
Total	80406 75	80406 75	85501 53	17 65012
Returns filed -				
January	10 12687 ✓	10 12687 ✓	5 37249 ✓ W	8 74688 ✓ W
April	22588 54 ✓	22588 54 ✓	30396 28 ✓ W	—
July	21 28238 ✓ N	21 28238 ✓ N	27 71780 ✓ W	—
October	15 69630 ✓	15 69630 ✓	16 42859 ✓ W	—
Total debits	69 69409	69 69409	79 91516	8 74688
Balance 12/31/56	10 71266 ✓	10 71266 ✓	5 58637 ✓ W	8 90324 ✓ W
	to CC	to BB	to CC	to CC

✓ Copies of returns inspected

N Examined monthly paid checks covering remittance of these amounts to the Federal Reserve bank of Kansas City.

✓ Copies of returns filed in January, 1957, examined for 4th Qtr. F.O.A.B. and State Unemployment Comp. insurance, and calendar year 1956 return for Federal Unemployment Comp. insurance.

W Examined paid check

Examination of returns filed in 1957 and test of 1956 accruals indicates that 12/31/56 balances are correctly stated.

Total payroll, 1956

Factory	20-1	3,996,608.11
Selling	30	156,307.82
General + Admin	30	196,328.51
Officers	30-1	321,000.00
Total		4,670,244.44

Test of accruals for 1956

	F.O.A.B.	Unemployment Comp. State	Federal
Total payroll (above)	4,670,244.44	4,670,244.44	4,670,244.44
Less exempt wages, per Co. records (Wages over $4,200 for F.O.A.B., over $3,000 for U.C.)	1,157,142.81	1,703,245.10	1,703,245.10
Taxable wages	3,513,101.63	2,966,999.34	2,966,999.34
Tax rate	2.0%	2.7%	3%
Tax accrual per audit	70,262.03	80,108.98	8,901.00
Tax accrual per company	70,279.88	80,129.04	8,903.24
Difference	(17.85)	(20.06)	(2.24)

Pass - not material

Expense tie-in

Expense accrual, per above analysis -

FOAB - Employer portion		70,279.88
Unempl Comp. - State		80,129.04
- Federal		8,903.24
		159,312.16

Expense charged -

Factory overhead	20-2	143,579.91
Selling expense	30	6,290.88
Gen + Admin. Exp.	30	9,441.37
Total, as above		159,312.16

Machine Products Co.

Provision for Federal and State Income Taxes

J.A

12/31/56 — 1/20/5

	Federal	State	Total
Balance 12/31/55	1 089 944 23	22 350 80	1 112 295 03
Payments - 3/15/56	539 631 71 M		
4/15/56		21 487 38 M	
6/15/56	539 631 70 M		
8/21/56	① 7 263 91 M		
Total payments against liability at 12/31/55	1 086 527 32	21 487 38	
Balance of liability at 12/31/55	3 416 91	863 42	4 280 33
Provision for 1956 income taxes	② 1 230 000 00	② 25 000 00	1 255 000 00 to P/L
Total provided for tax liability for 1956 and prior years	1 233 416 91	25 863 42	1 259 280 33
Payments of estimated tax - 9/15/56	55 000 00 M	-	
12/15/56	55 000 00 M	-	
Total estimated tax payments	110 000 00	-	110 000 00
Balance of liability at 12/31/56	1 123 416 91	25 863 42	1 149 280 33 to B/S-L

M Paid check examined

① Additional taxes assessed in connection with review of returns for years 1951, 1952 and 1953. Revenue agent's report dated 8/2/56 examined.

② After picking up our audit adjustments client prepared final tax returns showing following taxes payable:

Federal	$1 225 736 18
Kansas	24 772 28

Taxable income as shown by the returns was reconciled with our final income figures and the computation of the tax was verified. In view of the above examination the provision for 1956 income taxes appears adequate.

Review Questions

1. How do the audit considerations differ in the examination of liabilities as compared with the examination of assets?

2. What are the two most important points at which control over liabilities can be established?

3. What internal control measures should be placed in effect when numerous notes payable are issued each year?

4. Why do companies seldom keep their records in such a way that they may be assured that all liabilities will be paid?

5. How are approved invoices which are being held until payment is due likely to be filed? Why?

6. What verification of the accounts payable records should be made by company employees at the end of each month?

7. Indicate some of the more important phases of the handling of payables transactions which should be subjected to the internal auditor's scrutiny under the objectives of evaluation and compliance.

8. What points should be considered in the proper presentation of payables in the balance sheet?

9. What are the auditor's objectives in the examination of liabilities?

10. Why is the confirmation of accounts payable not required procedure?

11. What basic procedures should be applied in the verification of the recorded amount of accounts payable?

12. If receiving memos attached to invoices included in the accounts payable total show that the goods were received after the balance sheet date, what should the auditor do?

13. Why should notes payable paid during the year be examined?

14. List ten possible provisions which might appear in a bond trust indenture which would be of interest to the auditor.

15. What audit procedures should be followed in auditing income taxes payable?

16. How should amounts withheld from employees but not yet remitted at the balance sheet date be verified?

17. What procedures may be employed in verifying the amount of the contingent liability provided for service guarantees?

18. What procedure will usually be most important in the auditor's search for unrecorded liabilities? Why?

19. Why do unrecorded liabilities affecting income tend to be more material than those which are offset by an unrecorded current asset?

20. Should accounts payable confirmation requests be sent only to vendors to whom amounts are owing at the balance sheet date? Explain.

21. How might the review of the account "Professional fees and expenses" help to disclose possible unrecorded or contingent liabilities?

22. What procedures should be applied in disclosing any unrecorded liability for notes or bonds payable?

Questions on Application of Auditing Standards

23. What documents, approvals, or authorizations should the treasurer of a company review before signing a check which liquidates a liability for materials purchased, assuming that a good system of internal control is in effect?

24. State three basically different causes for debit balances in accounts payable, and state how you would display each type of debit balance assuming the amount were sufficiently material to warrant reclassification.

25. In the course of your examination of subsequent disbursements for unrecorded liabilities you discover two invoices relating to December which were not recorded as liabilities. One is dated December 26, and covers $10,000 of raw materials shipped f.o.b. shipping point on that date, and received by your client on January 3. The other invoice covers legal services in the amount of $6,000 for the month of December. Which of the two invoices would in all probability have a more material effect on the client's financial statements?

26. The auditor's review of subsequent disbursements will ordinarily show that each item tested will fall into one of the three following classifications:

(*a*) The item was correctly handled.
(*b*) An adjustment of balance sheet figures is necessary.
(*c*) An adjustment of both balance sheet and income statement figures is necessary.

State all the facts which would characterize instances relating to the purchase of material which would fit the above classifications.

27. The internal audit department of your client has one representative who spends all his time in the accounts payable department reviewing and approving vouchers and supporting data before they are paid. No other internal audit work is done in connection with accounts payable. Does this evidence good internal audit and control? Explain.

28. Your client handles its payables under a voucher system. State what steps would be necessary in order to answer a confirmation request mailed by the auditors examining a vendor's books. The request states that the balance shown by the vendor's books as due from your client was $7,246.89 as of April 30. The letter is received by your client on May 7.

29. To what extent will the method of presenting the liability for container deposits depend on whether the deposit was billed to the customer or collected in cash? Explain.

30. Liabilities are often disclosed through the review of other accounts. List six different accounts which might disclose unrecorded liabilities, and in each case state how the liability would be discovered.

31. In connection with the examination of a public grain elevator, how would you satisfy yourself as to the total liability to deliver grain on outstanding negotiable warehouse receipts?

32. Parent Corp. has guaranteed payment for all goods purchased by Subsidiary Corp. What effect will this agreement have on (*a*) the balance sheet for Parent Corp. and (*b*) the balance sheet for Parent Corp. and Subsidiary Corp., consolidated?

33. Of what value or use are the note register and paid and cancelled notes in the examination of notes payable and related accounts?

34. Your client's records show that a $30,000 note payable to its bank has been liquidated. What evidence other than the paid note itself might be examined as proof that the loan had actually been paid off?

35. In confirming notes payable, why does the auditor ask the holders of the notes to list any collateral security?

36. Your client's records show cash held by a sinking-fund trustee sufficient to cover the payment on serial bonds which mature in the coming year. How should the sinking fund and the maturing bonds be displayed in the balance sheet?

37. Your client has a series of coupon bonds outstanding. Coupons may be presented to the company cashier for payment. The cashier immediately marks all such coupons "paid" and periodically presents them to the accounting department for reimbursement. The accounting department verifies the number of coupons before approving the reimbursement. After the reimbursement has been made the coupons and the covering voucher are placed in the paid voucher file.

In the course of your examination you note that, whereas in the past about 97 per cent of the coupons were redeemed for each interest period, in recent periods the redemption rate has risen to 98.5 per cent.

Based on the information given

(*a*) What may have been happening?
(*b*) How would you prove your contention?
(*c*) What recommendations would you make to the client?

Problems

38. In the course of your examination of the Student Book Store as of December 31, you make a search for unrecorded liabilities which includes a review of disbursements recorded subsequent to December 31. You find the following schedule in support of check No. 3429, which was charged to the perpetual inventory account:

	Quantity	*Unit Cost*	*Total*
Inventory of consigned kits, October 1	34	$6.84	$232.56
Kits received since last report	125	6.84	855.00
Inventory of consigned kits, December 31	14	6.84	95.76
Kits sold, October-December	145		991.80
Incoming express charges on kits received			43.20
Balance due remitted herewith			948.60

Further investigation discloses the following information:

(*a*) The kits on hand at December 31 were included in the physical inventory.
(*b*) The perpetual control account was credited $425.89 to reduce it to agree with the physical inventory.
(*c*) The express charges were charged to the transportation-in account when they were paid.
(*d*) Kit sales are included with regular sales, which are the basis for the cost of sales entry under the retail inventory method.

Prepare the adjusting journal entry you would recommend based on the above information.

39. In connection with your examination of the financial statements of Jones and Smith as of June 30, you have sent requests to the company's major suppliers for copies of statements of their accounts with Jones and Smith. Such requests were sent even though Jones and Smith showed no balance owing to the supplier at June 30. The statement received from the Victory Supply Co. and your client's account payable record of transactions with that company are given below. Prepare a reconciliation of the balances of the two records, showing the apparent explanations for the various reconciling items, and state what further investigation you would want to make of the Victory Supply Co. account, and what action you would recommend to your client.

Jones and Smith

May	2	2/10, n/30	S	$1,891.20		$1,891.20
	12	2/10, n/30	S	341.52		2,232.72
	14		CR		$1,000.00	1,232.72
	20	n/30	S	418.21		1,650.93
	24		CR		341.52	1,309.41
June	1		CR		409.85	899.56
	12	2/10, n/30	S	634.86		1,534.42
	17		CR		870.79	663.63
	19	2/10, n/30	S	594.37		1,258.00
	24		CR		601.37	656.63
		C/M, invoice 6/12	J		33.49	623.14
	29	2/10, n/30	S	463.81		1,086.95

Victory Supply Co.

May	4	VR		$1,891.20	$1,891.20
	12	CD	$1,020.41		870.79
	14	VR		341.52	1,212.31
	22	VR		418.21	1,630.52
		CD	341.52		1,289.00
	30	CD	418.21		870.79
June	14	VR		634.86	1,505.65
	15	CD	870.79		634.86
	20	VR		594.37	1,229.23
	22	CD	601.37		627.86
	26	CD	33.49		594.37
	29	CD	594.37		—

40. Your client has been recording property taxes as an expense when they are paid, but in connection with your examination for the fiscal year ended September 30 he asks you to recommend an adjusting entry to put his records on an accrual basis as recommended by the Accounting Procedure Committee of the American Institute of Accountants. The following facts are available to you:

(a) The fiscal year of the taxing body begins on July 1.
(b) Property is assessed on March 1, and the taxes due on the assessment must be paid one-half by November 1 and one-half by May 1, following.
(c) Tax paid during the year under examination, $3,642.27.
(d) Tax due during the following year, $3,819.21.

41. In connection with your examination of Sanders & Co. as of December 31, prepare work papers showing your verification of the company's liability for

withholding taxes, Federal old-age benefit taxes, and unemployment compensation taxes. Selected information concerning the liability accounts appears below:

	Withholding Tax	*F.O.A.B.**	*Unemployment Compensation*	
			State	*Federal*
Balance January 1	$23,416.89	$6,731.08	$6,057.97	$2,614.38
Payments				
January 20	23,416.89	6,731.08	6,057.97	2,614.38
April 16	21,205.80	6,282.50	5,654.25	
July 19	21,416.36	6,351.70	5,716.53	
October 20	20,361.98	5,920.02	5,328.02	
Balance December 31 ..	22,264.81	6,349.18	5,714.25	2,490.34

* Includes employer and employee share.

(*a*) Total taxable payroll for the year under examination was $830,113.16.
(*b*) Payroll taxes for the year were charged as follows:

Manufacturing expense	$26,415.31
Selling expense	6,213.89
Administrative expense	4,725.89

(*c*) F.O.A.B. tax 1½ per cent on employer, 1½ per cent on employee.
(*d*) Unemployment compensation tax: state, 2.7 per cent; Federal, 0.3 per cent.

42. The Bickers Company, for 20 years manufacturers of "Washwell" washing machines, sells its product under a 5-year guarantee against defective production. At December 31, its balance-sheet included among its current liabilities the item, "Reserve for product guarantees—$84,325." This account has been credited with $5 for every machine sold and debited with amounts paid dealers who have serviced machines pursuant to the terms of the guarantee, and with other expenditures incurred in accordance with the terms of the guarantee.

The retail price of the machine during the last five years has ranged from $150 to $250, but the amount credited to the guarantee reserve has been on the same basis during this period. The price to dealers allows them a margin of 40 per cent of the retail price, out of which they are to pay all installation costs and provide all labor required to comply with the terms of the guarantee. Parts and materials used in carrying out guarantee terms are charged to Bickers at cost to the dealer. If it is necessary to return the machine to the factory, the Bickers Company pays transportation and all servicing costs. Such costs are accumulated on a blanket work order for each month. The company obtains from each dealer claiming reimbursement for parts used, a detail list of parts, the customer's name, the serial number of the machine, and a certification as to the work having been done. This is approved by the company service manager.

Assuming this is your first audit of the Bickers Company, prepare an audit program for the verification of the "Reserve for product guarantees." (A.I.A.)

43. You are engaged to make your first audit of a magazine publishing company which publishes a monthly magazine with a 50,000 circulation. Subscription rates are $2.00 for one year $3.60 for two years and $4.80 for three years. As subscriptions are received they are entered in a subscriptions register and a check mark is placed in one of three columns provided to indicate the length of the subscription. The total received on subscriptions for the month is credited to an unearned income account.

The monthly entry to record income earned is determined as follows. Each month the number of subscriptions received of each of the three types is totaled and multiplied by the average monthly income which will be realized. The total monthly income is then added to a running figure from previous months. This figure is in turn reduced by the monthly income on subscriptions which have expired. The list of these subscriptions is prepared by the mailing department from Addressograph plates which are sorted from the full stock of plates by an automatic detecting device on the addressing equipment. The length of the subscription is shown on the printing from the address plate.

After making the adjustment for new subscriptions and expired subscriptions the resulting figure is used as the basis for recording the income realized each month.

Prepare an audit program covering your verification of the unearned income account as of the end of the company's fiscal year.

44. From the following accounts and supplementary information prepare work papers showing your verification work and any adjusting entries covering your audit of bonds payable in connection with your first examination of Simpson, Inc., as of December 31, 1956.

6% 25-year Debenture Bonds, Due January 1, 1977

January 1, 1952	CR	$	$500,000.00	$500,000.00
	Bond Premium			
January 1, 1952	CR	$	$ 25,000.00	$ 25,000.00
	Treasury Bonds			
October 1, 1956	CD	$104,500.00	$	$104,500.00
	Bond Interest Expense			
January 1, 1956	CD	$ 15,000	$	$ 15,000.00
July 1, 1956	CD	$ 15,000		30,000.00

The treasury bonds were purchased at a price of 103 plus accrued interest through a broker. The bonds are not to be reissued, and the client asks you to prepare an adjusting entry writing off the bonds.

13 · Owners' Equity

The auditor's verification of the owners' equity in a business will usually require very little of the total audit time, since transactions tend to be rather infrequent. Those transactions which do occur, however, are likely to be material in amount, and must be carefully analyzed. Not only must the auditor be satisfied that the dollar amount is correctly stated, but he also must ascertain that the recording of the amount is in accordance with sound accounting theory and that all legal requirements have been met. These points are discussed more fully in later sections of the chapter.

INTERNAL CONTROL

Adequate internal control depends on the proper authorization of transactions, the satisfactory segregation of duties in the handling of the transactions, and the maintenance of suitable records of those transactions. Two distinct approaches exist to the attainment of the last two requirements as they pertain to capital stock. Most smaller concerns handle capital stock transactions themselves, whereas almost all larger firms delegate to independent registrars and transfer agents part or all of the responsibility for handling such transactions and keeping the related records. By so doing they not only secure superior internal control, but also they place the responsibilities in the hands of organizations which are best equipped to handle them efficiently and with full knowledge of attendant legal requirements.

Responsibilities of the Board of Directors

The starting point for a good system of internal control under any circumstances is the proper authorization of transactions and accounting entries. Of equal importance is the careful delegation of duties

and responsibilities concerning the handling of the transactions. The board of directors, as well as the stockholders in some instances, should authorize capital stock transactions. For both sales and repurchases of stock the number of shares and the price per share should be set. The board should also authorize the method of payment for shares sold if payment is not to be made immediately, or is to be made with assets other than cash.

Other responsibilities which should be retained by the board of directors include the determination of amounts at which certain transactions should be recorded, the authorization of transfers between equity accounts, and the declaration of dividends. When stock is issued in exchange for property, the valuation of the property and the amount of the equity created by receipt of the property should be set by the board. When no-par stock is issued, any allocation of the proceeds to an account other than capital stock should be made by the board. Transfers between equity accounts, as in the creation or extinction of retained earnings reserves and the restatement of any equity accounts, should also be authorized by the board. Dividends must be declared by the board. The declaration of a dividend includes setting the record and payment dates for the dividend.

When a corporation handles all stock transactions itself, the board of directors should designate the officers who are authorized to sign and countersign new stock certificates, the officer who is to maintain stockholders' records (usually the secretary), and the officer or officers authorized to sign dividend checks. One of the officers authorized to sign stock certificates should be designated as custodian of unissued certificates. If outside agents are to handle the stock transactions, the board should, of course, name those agents.

Records Maintained by the Corporation

As stated above, when the company handles its own stock transactions, one officer should be designated custodian of unissued stock certificates. He should receive delivery of the prenumbered certificates directly from the printer and should immediately ascertain that all certificates are accounted for. The officers authorized to sign stock certificates should do so only after satisfying themselves that the stock has been fully paid for or that a previously outstanding certificate has been surrendered.

The stock certificates are usually prepared in a form similar to a checkbook, with each stub showing the certificate number, and with spaces provided for entering the number of shares, the name of the

person to whom issued, and information about previously issued shares when the new certificate is issued in exchange for another certificate on a stock transfer. Federal taxes, and a state tax in some states, must be paid on issuance of stock certificates, and stamps purchased for the payment of such taxes should be affixed to the certificate stubs. When shares are repurchased or certificates are submitted to be reissued to a new owner, the old certificates should be cancelled to preclude their re-use and should be attached to the appropriate stub. Thus only stubs for issued and outstanding certificates will not have an unissued or cancelled certificate attached.

A stockholders' ledger should be maintained in addition to the certificate stubs, if there are many stockholders. Such a record facilitates payment of dividends and makes stockholder information more readily accessible. The record also serves as an independent check on the certificate stubs. The record may be maintained by the secretary of the corporation, or possibly by the accounting department, but in the case of large concerns the records may be kept by a separate stock transfer department.

Dividends are preferably paid by checks drawn on a separate dividend disbursing account. The checks should be prepared from the stockholders' ledger, or from an Addressograph plate file showing all needed information. Before signing the checks, the treasurer should calculate the total dividend payable, based on the dividend rate set by the board of directors and the number of shares outstanding. He should then balance the total checks written with this figure. The checks should be mailed without being returned to the person preparing the checks. Dividends should not be paid on treasury shares.

Independent Registrar and Transfer Agent

All corporations whose stock is listed on securities exchanges are required to utilize the services of an independent registrar, thus protecting stockholders against excessive or fraudulent issues of stock certificates. Such companies also, as a rule, appoint an independent transfer agent, since such a specialist is better prepared to handle the keeping of stockholders' records and the transfer of stock ownership. Additional internal control is also achieved in this way.

The responsibility of the registrar is to see that certificates issued by a corporation are in accord with the authorization granted by the corporate charter issued by the state of incorporation, and with the authorizations of the board of directors. A stock certificate becomes valid only after it is signed by the registrar. He should approve cer-

tificates only up to the maximum number of shares authorized, and a new certificate should be issued on transfer of ownership only upon presentation of the old certificate.

The transfer agent also has a record of the number of shares of stock outstanding. His main concern, however, is not in limiting the number of shares issued, but in maintaining records showing who owns the outstanding shares and in effecting transfers of stock ownership. The transfer agent supplies the corporation with a certified list of shareholders on the dividend record dates to serve as the basis of preparing individual dividend checks, and on the dates of annual meetings to show the number of votes to which each shareholder is entitled. The transfer agent may also serve as dividend disbursing agent, in which case a single check is forwarded to the agent to cover the individual dividend checks prepared and mailed by him.

Internal Reports

As might be expected, periodic reports showing balances and changes in the equity accounts are of little significance to successful business operation. In most instances periodic balance sheets supplemented by a statement of changes in contributed capital and retained earnings will meet all requirements for such information. To supplement such reports, however, the treasurer or controller should regularly review all entries to the equity accounts to establish their propriety.

Internal Auditing

One of the principal responsibilities of the internal auditor should be verification of all entries in the equity accounts to be certain they have been properly authorized, are stated at the correct amount, and reflect generally accepted accounting principles. Such a review will obviate the need for the treasurer or controller to make a similar examination.

If the company maintains all capital stock records itself, the internal auditor should account for all stock certificates, making certain that certificates issued since his previous audit are properly supported by the receipt of assets or cancellation of a previously outstanding certificate, and that the proper tax stamps have been affixed. The number of shares shown as outstanding by the general ledger should be balanced with the stock certificate stubs and with the stockholders' ledger. Dividends paid should be verified in total against the directors' declaration, and the individual payments should be tested against the stockholders' ledger.

If an independent registrar and transfer agent are employed, confirmation should be obtained as to the number of shares outstanding. Dividends paid should be tested against the certified list of shareholders submitted by the transfer agent, unless, of course, the transfer agent also acts as dividend disbursing agent.

For companies which maintain their own stock transfer departments, periodic surprise audits of the department are in order. All certificates on hand should be counted and balanced with the records, and tests should be made of the records to show whether all transactions have been properly recorded.

STANDARDS OF STATEMENT PRESENTATION

Capital Stock

To enable the statement reader or financial analyst to obtain all information which may affect any conclusions reached, complete data about the capital stock of the company should be given in the stockholders' equity section, as follows:

1. Description of each class of stock outstanding.
2. Preferences of any preferred shares as to dividends or liquidation and any other rights or privileges. (If preferred stock carries a redemption or liquidation price which is in excess of par or stated value, the aggregate of that excess should be mentioned to show the effect on common stock equity.)
3. Indication of whether stock is par or no-par.
4. Par value of stock, or stated value, if applicable.
5. Number of shares authorized, issued, held in the treasury, and outstanding.
6. Information concerning shares reserved for stock subscribed but not issued, for outstanding options or stock purchase warrants, or for issuance to bondholders or preferred stockholders on exercise of the right to convert into common stock.
7. The amount of any discount or premium resulting from the sale of outstanding shares.

Treasury Stock

Shares of stock held in the treasury should not be listed as an asset except in very rare instances, and then only if the nature of the item is clearly revealed. Similarly, dividends should not be recorded and shown as income.

Three ways of treating treasury shares appear to have fairly broad acceptance, both in theory and as demonstrated by published corporate statements. Based on findings published by the American Institute of Accountants in its annual study, *Accounting Trends and Techniques,* the least popular of the three alternatives is to deduct the cost of treasury shares from retained earnings. Although this treatment may appear to mix the proverbial apples and oranges, there is sound theoretical justification for such treatment. Corporate stockholders have been given limited liability in exchange for a promise to protect creditors by not withdrawing originally contributed capital. Thus any payment to a stockholder to reacquire shares issued to him is proper only to the extent that the assets paid out originated from retained earnings rather than from the original payment for the stock. In some states the acquisition of treasury stock is legally restricted to the amount of retained earnings, thus justifying the deduction of treasury stock from retained earnings, but even in states where such a restriction does not exist, proper recognition of the inherent obligation to maintain paid-in capital intact as a form of protection to creditors should warrant a similar treatment of the cost of treasury stock in the financial statements.

The two remaining possibilities for displaying treasury stock in the financial statements are of about equal popularity, although the trend is toward more widespread use of the method which shows the cost of treasury stock as a deduction from total paid-in capital and retained earnings. The gaining popularity is probably attributable to the simplicity of the accounting entries under this method and the clarity of the treatment to the average investor not trained in accounting or the use of financial statements.

The method which is declining in popularity is the so-called "constructive retirement" method whereby treasury stock is carried at par or stated value and is shown as a deduction from the total shares of stock issued. Under this method, as is also true when reacquired shares are actually retired, gains resulting from a repurchase price less than the original issuance price should be credited to a contributed capital account and not to retained earnings. If the repurchase price exceeds par or stated value, any such excess up to the amount of any premium received on the original sale of those shares should be charged against the original premium received. Any amount by which the repurchase price exceeds the original issuance price should be charged either against any previous gains from treasury stock transactions or against retained earnings.

Under any of the methods of treating treasury stock, gains realized

on resale of the stock should be treated as contributed capital and not taken to the retained earnings account. Losses may be charged against any previous gains, but after these are exhausted losses should be charged against retained earnings.

Contributed Capital in Excess of Par or Stated Value

Under the theory that contributed capital should be maintained intact for the protection of creditors, any contributed capital amounts other than those shown as capital stock should be shown in such a way that the amounts will not appear to be available for dividends or be confused with retained earnings. Typical items of contributed capital which would be classified under this heading would include amounts received on capital stock in excess of par or stated value, gains on treasury stock transactions, amounts arising from recapitalization, and donations. The best procedure is to list each type of item separately with a full description, but if the amounts are not material they may be combined under a single heading. Any changes in these contributed amounts during the year should be set forth in a separate statement.

Unrealized Appreciation

Although accountants continue to look with disfavor on revaluing assets to reflect appreciated value or replacement value, a few business concerns have nevertheless revalued some of their assets. The resulting increase in the stockholders' equity should be shown as a separate item with clear indication that it is unrealized. Every effort should be made to prevent the statement reader from assuming that the item is available for dividends. If the revaluation which has been made materially changes the financial picture of the company, the auditor may find it necessary to refrain from expressing an over-all opinion on the financial statements.

Retained Earnings

The term "retained earnings" has been used throughout this book in recognition of the recommendations of the Committee on Terminology of the American Institute of Accountants to eliminate the use of the term "surplus." The recommendation was made in view of the misapprehensions often resulting when the term "surplus" is encountered by investors who are not familiar with the technical meaning of the term. Substitute terms other than "retained earnings"

which have been used include "earnings reinvested in the business," "retained income," "accumulated earnings retained and used in the business," and "undivided profits."

Analysis of Changes in Retained Earnings. A separate statement may be used to give a complete picture of changes in retained earnings, or the analysis of the changes may be combined with the income statement. In the latter instance, the balance of retained earnings at the beginning of the year should be added to the net income figure before any other items are shown. If the only changes are the net income for the year and the dividends paid, the analysis of changes in retained earnings may be shown as a part of the balance sheet presentation of retained earnings. Of the three alternatives, the combined statement of income and retained earnings is frequently recommended because some of the changes in retained earnings may be closely related to net income. A good example would be a correction of prior years' earnings. The principal disadvantage of the combined statement is that the important figure of net income for the year is buried within the statement.

Treatment of Gains and Losses Arising from Extraordinary, Nonrecurring Transactions. There are two generally recognized concepts of income centering about the treatment of extraordinary, nonrecurring gains or losses. Under the "all-inclusive" or "historical" concept it is held that to give a true picture of income over the years all gains or losses should be reflected in the income statement before arriving at the figure for net income. Any extraordinary, nonrecurring gains or losses should, however, be reported separately, immediately before the net income figure, and should be clearly labeled. The figure immediately preceding any such items will thus be net income from normal operations, while the final figure will simply be the final net income for the year.

Under the "current operating performance" concept of net income it is held that since the net income figure is used in evaluating past performance and estimating future prospects, the inclusion of extraordinary, nonrecurring gains or losses in the computation of net income would tend to distort the net income figure and lead to false conclusions. Thus the recommendation is made that extraordinary, nonrecurring gains or losses which are material in relation to net income should be taken directly to retained earnings. As an acceptable alternative, they can be reported on the income statement *after* the figure clearly labeled as net income. The final figure on the income statement would then be described in some such fashion as "Balance of net income transferred to retained earnings, after special loss item."

The Committee on Accounting Procedure of the American Institute of Accountants has stated that extraordinary, nonrecurring charges or credits should be excluded from the determination of net income, if the materiality of the items is such that to include them would impair the significance of net income. Studies of published reports show that the committee recommendation is not being followed consistently, but a sufficient number of statements reflect such items in the statement of retained earnings to warrant the observation that the burden of proof is on the person who does not follow the committee preference. The committee also expressed a preference for taking special items directly to retained earnings rather than showing them on the income statement following the net income figure. This preference is based on possible misconceptions which could easily arise that the last figure on the income statement is the net income for the year, even though the statement clearly shows that an earlier figure is actually the net income for the year.

Examples of items which are properly charged or credited to retained earnings would include premiums paid on the redemption of preferred stock, adjustments applicable to prior years, write-offs of intangible assets (material amounts only, not regular amortization), unusual gains or losses of a material amount, recapitalization expenses, and adjustments of the carrying value of investments in subsidiaries. As stated in the preceding chapter, any effect which such items have on income taxes payable should also be taken to retained earnings rather than being allowed to affect net income.

An alternative to taking items representing adjustments of prior years' income directly to retained earnings is to restate the income statements for the years involved and "spread back" the adjustments. Since the revised figures for the prior years presented on a comparative basis will not agree with the figures originally reported, the revised figures should be footnoted with a full explanation concerning the nature of the revision and the amount involved.

Reserves. The A.I.A. Committee on Terminology has recommended that the term "reserve" be used only in connection with appropriations of retained earnings, and that recommendation has also been followed in this book. So-called asset valuation reserves and liability reserves have been given titles which do not involve the use of the term "reserve." Inasmuch as the term "reserve" is restricted to appropriations of retained earnings, it therefore follows that such reserves should not be provided by charges against income. This point is particularly important with respect to reserves for possible future inventory price declines, general purpose contingency reserves, or any other provisions for indefinite possible future losses or expenditures.

Since such amounts are indeterminate, they would have the effect, if charged against income, of arbitrarily reducing net income. Preferably, all items entering into the determination of net income should be based on objective measurements. Although admittedly many estimates are included in that classification there are, nevertheless, objective bases for the estimates, as in the case of depreciation or a provision for expenses related to product guarantees. General purpose contingency reserves, on the other hand, at best represent pure conjecture, and they are highly subject to individual opinions and desires.

The reasoning behind the manner in which true reserves should be created also affects the proper method of disposing of the reserves. The only permissible charges against the reserves should be for transfers restoring any unneeded amounts to retained earnings. Income should not be relieved of costs or losses applicable to the current period by charging such items against a reserve, even though the reserve may have been provided in anticipation of such items. If the items are material and of a nonrecurring, extraordinary nature, they should be taken directly to retained earnings. If a reserve had been provided in anticipation of such items, the reserve can then be restored to retained earnings.

Costs or losses which were definitely anticipated in an earlier period should have been provided for by a charge to income at that time, but then the contra credit should not have been to an account which included the term "reserve" in its title. If no earlier provision was made, the items must be charged against income when they occur. Income would be misstated if the items were taken to retained earnings under such circumstances.

Restrictions on Retained Earnings. Any limitations on the availability of retained earnings for the payment of dividends should be disclosed in the balance sheet. Disclosure may be made by footnote or by showing restricted amounts separately from those amounts available for dividends. Restrictions may result from the provisions of a bond indenture or a loan agreement, legal requirements relating to the acquisition of treasury stock, cumulative preferred dividends in arrears, or voluntary action by the board of directors. In the latter case, the restriction is usually accompanied by an appropriation of retained earnings set up in the form of a reserve.

"Dating" Retained Earnings. When a deficit has been eliminated by a reduction in contributed capital through a quasi-reorganization, any retained earnings arising after the reorganization should be "dated" by including a comment such as, "Retained earnings since June 25, 1954." In this way the reader is put on notice that operations

prior to that date resulted in a deficit which was absorbed by a reduction of contributed capital.

Owners' Equity in a Partnership or Sole Proprietorship

Customarily, earnings and drawings are combined with the previous balance of the owners' equity in a partnership or sole proprietorship, and a single total is shown on the balance sheet. If only a few partners are involved, each partner's equity should be shown separately. There appears to be considerable merit, however, to following a plan similar to that used in accounting for stockholders' equity in a corporation. Although the same legal reasons do not exist for showing retained earnings as a separate figure for a partnership or proprietorship, valuable additional information can be given in that manner. The size of the retained earnings figure gives some indication of whether the business has prospered in the past and shows whether the business has been expanding. Expansion by retention of earnings is usually taken as a sign of health and vigor in a business.

VERIFICATION OF STATEMENT AMOUNT

The auditor's objectives in verifying the amount at which the owner's equity should be stated in the balance sheet are

1. To substantiate the statement amount through supporting records.
2. To determine that all transactions affecting the equity accounts have been properly approved and recorded.
3. To determine that all legal requirements have been observed and that the rights of various parties have been respected.

Substantiation of Statement Amount Through Supporting Records

Corporate Charter. In an initial audit the corporate charter should always be read, and any matters having accounting implications should be abstracted and retained in the permanent file. Such matters would include a description of the various classes of stock which the company is authorized to issue, any special privileges or rights of the individual classes, and the number of shares of each class of stock which the corporation is authorized to issue. Such information is, of course, essential in determining the propriety of the client's presentation of capital stock amounts in the balance sheet.

Records of Shares Issued. When the issuance of stock certificates and the maintenance of stockholders' records are handled by the client rather than by an independent agent, the auditor will have to do considerably more work before he will be in a position to form an opinion on the client's statement figures. Typical procedures involving reference to supporting records would include preparing or verifying a trial balance of the stockholders' ledger, and balancing the trial balance total with the general ledger record of the number of shares outstanding. Also, the stock certificate book should be examined and a total obtained of the number of shares shown as outstanding by each stub not accompanied by a cancelled or unissued certificate. This figure, likewise, should agree with the general ledger record. In examining the stock certificate book the auditor should be careful to note that no unissued certificates have been removed from the center or back of the book. When internal control is negligible and relatively few certificate changes have occurred, the auditor may find it desirable to account fully for each certificate issued since his previous examination. On transfers of ownership, this would involve examining the cancelled certificates surrendered in effecting the change.

If the client has engaged an independent transfer agent and/or registrar, written confirmation should be obtained of the number of shares of stock authorized and the number of shares of stock issued and outstanding. The transfer agent should also be asked to state the number of shares held in the name of the corporation to aid in the verification of any treasury stock. The auditor should examine any shares held in the treasury to verify their existence and to establish that the shares have not been placed to an unauthorized use.

Determination That All Equity Transactions Have Been Approved and Properly Recorded

Analysis of Account Changes. Entries to any of the stockholders' equity accounts occurring since the previous examination should be detailed in the auditor's working papers and verified as to propriety and accuracy of amount. Frequently such analyses are kept in the permanent file and added to each year. In this way a complete history of all changes in the owners' equity is always readily available.

Capital Stock Transactions. All capital stock transactions should be traced to authorizations in the minutes of the board of directors. This would include sales of unissued stock, the exchange of unissued stock for property, the issuance of shares in connection with a stock dividend or a stock split, and the acquisition or disposition of treasury

shares. Where specific dollar amounts have been set by the board for such transactions, the recorded transactions should, of course, agree with those figures. Any amounts received in excess of par or stated value should be determined and traced to entries in the appropriate accounts.

Any proceeds of sales of unissued or treasury shares should be traced to entries in the appropriate asset accounts and to deposits in company bank accounts if cash was received. The amount should also be verified against any supporting data available, such as an underwriting agreement or stock option agreement.

When treasury stock has been purchased, if a price has been specified by the board of directors the auditor should determine that the transaction was effected at that price. As further evidence of the purchase cost, paid checks should be examined, and if the purchase was effected through a security dealer, the advice of purchase should also be noted. Proceeds of sales of treasury stock should be verified in a comparable manner. The auditor should also note that any gains or losses arising from treasury stock transactions are recorded on a generally accepted basis. Gains should not be taken to the retained earnings account either directly or through the income statement. Losses should first be offset against previous gains resulting from transactions in the same class of stock, and any remaining amounts should be charged against retained earnings.

Stock dividends which are so small in relation to the shares of stock already outstanding that they are unlikely to affect the market price of the stock should be recorded by capitalizing an amount not less than the fair value of the shares issued. Such action precludes the possibility of amounts remaining in retained earnings, subject to possible further distributions, whereas the shareholders might assume that those amounts had already been distributed. On the other hand, if sufficient shares are issued so that the share market value of the stock is likely to be materially reduced, the minimum amount to be capitalized as described above does not apply, since the distribution will then be more in the nature of a stock split rather than a dividend.

Retained Earnings. It might seem, after the auditor has verified every other figure on the balance sheet, that retained earnings would simply be the balancing figure and would require no further verification. Under the double entry system, however, the verification of all entries to the retained earnings account provides a valuable double check. For instance, a debit to an asset account may have been balanced by a credit to retained earnings. If the entry was improper, and if the debit was overlooked because it was buried among a large

number of other debits, the transaction would still be brought to light through a careful analysis of entries to the retained earnings account. Another reason which makes the analysis of all entries to retained earnings of extreme importance is that the account is the basis for dividends, and it must therefore reflect only realized income from transactions other than the purchase or sale of the company's own stock.

Credits to retained earnings. The principal credits to retained earnings should be for net income for the year, extraneous, nonrecurring gains taken directly to retained earnings, and reserves which are unneeded and are therefore being restored to the retained earnings account. Each of these can be readily verified as to amount, and the return of reserves to retained earnings should be traced to authorization by the board of directors.

Dividends. Of the possible debits to retained earnings, dividends can be expected to occur most frequently. The auditor should verify that dividends were paid on dates specified in the minutes of the board of directors. If the fiscal year closes between the date of the directors' meeting at which a dividend was declared and the date specified for payment, the auditor should ascertain that the dividend payable has been set up as a current liability. The amount of each dividend should be verified by applying the per share amount declared to the number of shares outstanding at the record date, as was done on schedule TT. The data concerning the authorization of the dividend should be cross-referenced to the appropriate reference in the abstract of the minutes of the board of directors' meetings.

Reserves. Debits to retained earnings for the creation of reserves may either be authorized specifically by the board of directors, or they may result from a contractual agreement as in the case of a loan agreement or a provision in the trust indenture covering bonds payable. Since the board would have approved such an agreement, no further approval would be necessary to set up the required reserve. In addition to verifying any entries to create or increase a reserve against the authorization for such entries, the auditor should satisfy himself in a general way that all reserves are serving a useful purpose and are reasonable in amount. Although any unnecessary or excessive reserves would not be likely to necessitate any qualification of the auditor's opinion, the auditor might wish to advise the client about the matter in the hope of inducing the client to make adjustments which would make the reserves more meaningful and realistic. As stated earlier, reserves established to provide for general contingencies or possible losses should be provided by an appropriation of retained earnings rather than by a charge against income. If losses do occur

they should not be charged against such reserves, but rather they should be treated in the customary manner, and any reserve balances no longer required should be returned to retained earnings.

In a first audit, all material entries affecting retained earnings since the inception of the business should be verified for approvals, accuracy of amount, and propriety.

Determination That Legal Requirements Have Been Observed and Rights of Various Parties Respected

Both legal requirements and questions of the rights of various groups who may have opposing interests are likely to be involved in almost any transaction affecting the stockholders' equity in a corporation. Even though the auditor is not expected to be an expert on such matters, he should at least recognize the more common requirements and problems and ascertain that they have been properly met or solved. If there are matters about which the auditor is in doubt he should certainly seek the opinion of the client's attorney. Among the points which the auditor should be especially careful to watch for are the following:

1. Has the business been legally incorporated?
2. Have provisions of the corporate charter been adhered to concerning such matters as the type of activity the company is entitled to engage in and the classes of stock and number of shares which the company is authorized to issue?
3. Have stock transfer taxes been paid and the tax stamps properly handled?
4. Can unissued stock be sold at a discount?
5. Is the corporation permitted to re-acquire or retire outstanding stock?
6. Have any legal or contractual restrictions on the payment of dividends been observed? These might result from the acquisition of treasury stock, bond indenture agreements, or cumulative preferred dividends in arrears.
7. Have any restrictions on the use of retained earnings for the payment of dividends been mentioned in the balance sheet?
8. Has all contributed capital been separately accounted for and retained intact for the protection of creditors, unless distributions are permitted by state law?

Audit of Partnerships and Sole Proprietorships

One of the most important points which the auditor should watch for in the audit of an unincorporated business is the proper separa-

tion of business and personal transactions. Such transactions must be properly handled if the true income of the business is to be determined. Personal expenses paid from business funds should be charged against the owner's equity rather than as an expense of the business. Conversely, business expenses paid from personal funds must be brought into the business records. Tax considerations tend to foster the payment of personal expenses from business funds, particularly in the case of social activities which may have some limited business connection. Borderline cases are usually decided in favor of the treatment which will result in the lowest tax, with the additional advantage of pleasing the client. Excessively liberal treatment of such items may, however, work to the disadvantage of both the auditor and the client. The auditor's independence may be questioned with a corresponding detrimental effect on his professional reputation. At the same time, the client's tax return is likely to be subjected to a more critical review if it becomes apparent that the client has taken excessive expense deductions.

In the examination of a partnership the auditor should satisfy himself that the provisions of the partnership agreement have been carried out as they pertain to the distribution of net income and the maintenance of partners' capital and drawing accounts. Points likely to be covered in the agreement would include the basis of distributing profits, including any provisions for salaries or interest, maximum drawings permitted during the year, minimum capital balances to be maintained, additional capital to be contributed, and the treatment of loans by the partnership to or from the partners.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of owners' equity appearing in *Case Studies in Auditing Procedure*, Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Total assets	$565,000
Capital stock, Class A	125,000
Capital stock, Class B	50,000
Retained earnings	197,000

The auditor maintained a schedule of capital stock outstanding in the working paper files. The schedule showed the name of each shareholder,

the numbers of each certificate held, and the total number of shares held. Transactions appearing in the certificate books were entered in the schedule, and any certificates returned for transfer were examined and the transfer stamps verified. At the end of the year the open certificate stubs were compared with the schedule in the working papers.

The retained earnings account was analyzed for the year. Dividends declared were verified against the minutes of the board of directors.

Case B (Loading and Hauling Equipment Manufacturer)

Total assets	$3,438,000
Capital stock issued	600,000
Capital stock in the treasury ...	4,000
Retained earnings	1,000,000

The verification of capital stock was simplified by the fact that no changes had occurred during the year. The number of shares was confirmed by the registrar for the stock issue. Certificates for shares held in the treasury were examined.

The only changes in retained earnings were the net profit for the year and the payment of a dividend. The dividend was verified against the minutes of the board of directors, and the actual payment to the paying agent was traced to the cash book and cancelled check.

Case C (Department Store)

Total assets	$5,600,000
Capital stock	2,000,000
Retained earnings	2,300,000

The audit program called for the auditor to summarize changes in the capital stock account during the year. The specific items were traced to such supporting records as minutes or agreements, and receipts and disbursements were traced to the cash records. The registrar and transfer agent were requested to confirm the amount of stock outstanding at the balance sheet date. At the time of the cash count, treasury shares were counted, noting that the certificates were in the name of the client or properly endorsed.

The auditor reviewed the state statute covering incorporation and the certificate of incorporation to determine whether all provisions affecting the company were being complied with. Special attention was paid to provisions relating to the issuance of no-par stock and the propriety of the company repurchasing its own stock.

Changes in retained earnings were scheduled and traced to supporting evidence. Note was made that no amounts of contributed capital were credited to retained earnings. Dividends declared were verified against

minutes of directors' meetings. Minor debits and credits to retained earnings were transferred to operating accounts. Any major adjustments pertaining to prior years' operations were made through retained earnings if making them through income for the year would distort operating results. Any such adjustments arising year after year were, however, taken to be indicative of inaccurate accounting and were studied in that light.

Machine Products Co.
Capital Stock
12/31/56

J.A.S.
1/15/57

Authorized 300,000 shares, no-par value; stated value of $10 per share per minutes of directors' meeting 4/10/56 - XX

	Shares	Amount
Balance 12/31/55	100,000	1,000,000.00
5/15/56 Portion of proceeds of sale of additional shares, at stated value	50,000 Ⓓ	500,000.00
Balance, 12/31/56 - issued and outstanding	150,000 ✓	1,500,000.00
		to B/S-L

The full proceeds of $10 per share on the original issue of stock were credited to capital stock. In connection with the issuance of additional shares, the board of directors established a stated value of $10 per share - see XX.

Ⓓ Analysis of proceeds of sale of 50,000 shares @ $20, as authorized by board of directors - (see XX):

Per statement of proceeds of sale by Faris, Downing & Co.:

Sale of 50,000 shares @ $20	1,000,000.00
Less underwriting costs and sales commissions	5,000.00
Net proceeds remitted 5/14/56	955,000.00 μ

Disposition

Credited to Cap. Stk @ $10 per share	500,000.00
Credited to Amount received in excess of stated value T/T-1	455,000.00
Total, as above	955,000.00

μ Traced to cash receipts book and bank deposit
✓ confirmed by registrar - SS-1
$ agrees with trial balance of stockholders' ledger and open stock certificate stubs. All necessary stock transfer stamps were affixed.

Machine Products Co.

Amounts Received on Capital Stock in Excess of Stated Value

12/31/56

J.A.S
1/15/57

5/15/56	Amount received on sale of 50,000 shares of stock which was in excess of $10 stated value, per schedule SS		455000 00
	Less expenses of sale of stock		
6/12/56	Legal fees and expenses	32648 11	
6/15/56	Engraving costs for new certificates	500 00 n	
	Miscellaneous expenses	32347	
	Total		4088 28
	Balance 12/31/56		450911 72
			to B/S-L

n Examined invoices

TT-2

Machine Products Co.
Retained Earnings

12/31/56

J.A.S.
1/15/57

Retained earnings reserved for possible inventory declines and other contingencies

Balance 12/31/55 and 12/31/56		250000.00
		to B/S-L

Reserve authorized by board of directors at various times between 1945 and 1949. No change since 1949

Retained earnings free and available for dividends

Balance 12/31/55		474935.17
Net income for 1956, per P/L		1209350.42
Total		1684285.59

Dividends declared and paid

Directors' Mtg. Date per xx	Date of Record	Date Paid	Rate	Shares Outstanding	
1/10/56	1/25/56	2/1/56	$1.50	200000	300000.00
7/10/56	7/25/56	8/1/56	$1.00	250000	250000.00
	Total dividends				550000.00
Balance 12/31/56					1134285.59
					to B/S-L

Review Questions

1. Contrast the typical approach to internal control over capital stock transactions and records for a small corporation and for a large corporation.

2. State the various matters likely to be involved in the authorization of capital stock transactions by the board of directors.

3. What information should be shown on the stock certificate stubs?

4. Describe the responsibilities of a registrar and a transfer agent.

5. State the procedures which the internal auditor might perform in verifying transactions and records concerning the stockholders' equity when the corporation handles the transactions and records.

6. What information should be included in the balance sheet concerning capital stock?

7. Describe the three acceptable ways of showing treasury stock in the balance sheet.

8. List the more common situations which would give rise to amounts of contributed capital in excess of par or stated value.

9. What disadvantage exists in the use of the combined statement of income and retained earnings?

10. Describe and distinguish the two basically different concepts of income.

11. How should the creation and disposition of general purpose contingency reserves be handled? Why?

12. In what ways may restrictions on retained earnings arise which would have to be disclosed in the balance sheet?

13. What are the auditor's objectives in verifying the amount at which the owners' equity is stated in the balance sheet?

14. What supporting records should be examined in support of the balance sheet amount for capital stock when the client maintains the stock records?

15. What verification should be made of entries in the capital stock account?

16. Why is the verification of entries to the retained earnings account extremely important?

17. For what points should the auditor watch to ascertain whether transactions affecting the stockholders' equity have been in accordance with legal requirements and the rights of various groups?

18. What problem is often faced in the audit of unincorporated businesses?

Questions on Application of Auditing Standards

19. You are engaged in making the audit of a corporation whose records have not previously been audited by you. The corporation has both an independent transfer agent and a registrar for its capital stock. The transfer agent maintains the record of stockholders and the registrar checks that there is no overissue of stock. Signatures of both are required to validate certificates.

It has been proposed that confirmations be obtained from both the transfer agent and the registrar as to the stock outstanding at the balance-sheet date. If

such confirmations agree with the books, no additional work is to be performed as to capital stock.

If you agree that obtaining the confirmations as suggested would be sufficient in this case, give the justification for your position. If you do not agree, state specifically all additional steps you would take and explain your reasons for taking them. (A.I.A.)

20. The Eaton Company was incorporated July 10, with an authorized capital as follows:

Common stock, Class A, 20,000 shares, par value $25 per share
Common stock, Class B, 100,000 shares, par value $5 per share

The capital stock account in the general ledger is credited with only one item in the year 1945. This represents capital stock sold for cash, at par, as follows:

Class A, 12,000 shares
Class B, 60,000 shares

The sum of open certificate stubs in the stock certificate books at December 31 following the incorporation indicates that 82,000 shares of stock were outstanding.

(*a*) State possible explanations for this apparent discrepancy.

(*b*) State the steps you would take to determine the cause of the discrepancy. (A.I.A.)

21. What is the theory behind state laws which restrict dividends to retained earnings in excess of the cost of any re-acquired stock, and limit the re-acquisition of stock to amounts not exceeding retained earnings?

22. How may subscriptions receivable on capital stock be shown in the balance sheet?

23. In a first audit, what verification should the auditor make of retained earnings in addition to verifying that retained earnings is the balancing figure after verifying all the other figures on the balance sheet? What types of items might be disclosed by such verification?

24. What factors should be considered in determining whether the following items are proper charges to retained earnings for the year under examination?

Unabsorbed factory overhead due to plant shutdown for 2 months ...	$22,800
Damages in settlement of patent infringements occurring over the past 6 years	36,000
Cost of replacing defective parts in machines sold the previous year ...	7,800
Fire loss in excess of insurance carried	10,200

25. List the various circumstances which might result in a restriction of the availability of retained earnings for dividend distributions. For each, state how the auditor would ascertain that such a restriction existed.

26. Your client has retired a bond issue in the year under examination, and asks your recommendations as to what disposition to make of the sinking fund reserve which is no longer required. What would you advise?

27. The controller of the Jackson-Higgins Corp. has decided to modernize the corporation's financial statements, and asks for your suggestions as to what terms might be substituted for earned surplus. He also asks you to state which term you prefer and the reasons for your preference.

28. The Committee on Accounting Procedure of the American Institute of Accountants has expressed a preference for the current operating performance concept of income as against the all-inclusive concept. Does this preference make the use of the combined statement of income and retained earnings more desirable or less desirable than had their preference been for the all-inclusive concept? Explain.

29. Justify your recommendations as to the proper presentation in the financial statements of the following facts relating to a general purpose contingency reserve:

(*a*) Provision creating the reserve.
(*b*) Presentation of the reserve in the balance sheet.
(*c*) An expenditure of the type anticipated by the creation of the reserve.

30. With respect to secret reserves,

(*a*) In what ways may they be created?
(*b*) What is the usual reason for creating such reserves?
(*c*) What attitude should the auditor take toward such reserves?

31. (*a*) What is the purpose for a provision in a bond trust indenture requiring the borrower to establish a sinking fund reserve?
(*b*) How should the provision be worded to assure the protection desired?

Problems

32. You are conducting your firm's first audit of the S Manufacturing Corporation, as of December 31, 1956. Although the corporation is small, it does have a chief accountant. He has already prepared statements for the year 1956 and included therein the following analysis of surplus:

Balance, January 1, 1956	$43,507
Net income for the year	16,212
Gain on sale of equipment	146
Premium on sale of capital stock	3,200
Total credits	$63,065
Reserve for income tax on 1956 income	$ 5,000
Dividends paid	5,000
Pension payments to retired officer	2,000
Total debits	$12,000
Balance, December 31, 1956	$51,065

(*a*) Give in detail the procedures to be followed in the audit of each item in the above analysis except "Net income for the year." Your engagement does not include the preparation of the income tax return.
(*b*) State the changes you would recommend in the presentation of these items in the financial statements. Give reasons for any changes recommended. Give the justification for not changing the items which you believe are properly presented. (A.I.A.)

33. The Wonder Manufacturing Company had purchased most of its equipment at black market prices during the war, and in the postwar period discovered that its costs were greatly in excess of its competitors', so that it was therefore impossible to show a profit. The company decided to write this equipment down by $100,000, which would reduce the carrying value to a figure in line with current conditions. The company's method of handling the quasi-reorganization is indicated by the excerpts from its balance sheet, shown below:

	Before	*After*
Capital stock, $100 par value, 5,000 shares authorized and outstanding	$500,000	
Capital stock, no par value, 5,000 shares authorized and outstanding		$450,000
Amount paid in on capital stock in excess of par value	60,000	10,000
Retained earnings	25,000	25,000
Total capital	$585,000	$485,000

(*a*) If the client insists on this treatment, would the situation have any effect on your certificate? Explain.

(*b*) Show the above items as they should appear in a balance sheet one year after the date of the quasi-reorganization. During the year the company reported a $20,000 net income.

34. The capital section of a company's balance sheet is stated as follows:

Preferred stock, $100 par value, authorized and outstanding 10,000 shares		$1,000,000.00
Common stock, no par value, stated value $1.00, authorized and outstanding 100,000 shares		100,000.00
Amounts received on sale of stock in excess of par or stated value:		
Preferred stock	$150,000.00	
Common stock	400,000.00	
Total		550,000.00
Retained earnings		752,861.12
Total capital		$2,402,861.12

Revise the above figures to show the effect of purchase and retirement of capital stock as follows:

1,000 shares preferred stock, cost $125 per share.

1,000 shares common stock, cost $3.50 per share.

35. The Jordan Company handles the issuance and transfer of its capital stock, maintaining in addition to the general ledger account a stockholders ledger, and a stock certificate book in which stubs are provided to record the necessary information concerning the outstanding certificates. Cancelled certificates are attached to the stubs.

Based on the following accounts and supplementary information, prepare audit work papers showing the extent of your examination of the following accounts. You are making a regular repeat examination of the financial statements as of December 31.

Capital Stock, Authorized 50,000 Shares
$10 Par Value

Jan.	1	Balance forward	$	$	$250,000
July	1	Stock dividend J7-13		125,000	375,000

Capital Paid in on Capital Stock in Excess of Par Value

Jan.	1	Balance forward	$	$	$ 37,500
July	1	Stock dividend J7-13		18,750	56,250

Retained Earnings

Jan.	1	Balance forward	$	$	$364,208
Mar.	31	Dividend paid CD 37	12,500		351,708
July	1	Stock dividend J7-13	143,750		207,958
Sept.	30	Dividend paid CD 96	18,750		189,208
Dec.	31	Profit and loss J12-15		51,297	240,505

Excerpts from minutes of Board of Directors:

Meeting Date	*Action Taken*
March 15	Approved cash dividend of 50¢ per share payable March 31 to Stockholders of record March 25.
June 13	Approved stock dividend at rate of one share for two shares held payable July 1 to stockholders of record June 25. Amount per share capitalized to be equal to proceeds per share on all stock outstanding.
Sept. 15	Approved cash dividend of 50¢ per share payable September 30 to stockholders of record September 25.

On June 25 there were 27 stockholders.
Last stock certificate issued during the year was No. 103. The working papers for the previous year state that stock certificate No. 73 was the last certificate issued, and all subsequent numbers were in the certificate book and unissued.

36. Bauer Bakeries, Inc. employs an independent registrar and transfer agent to handle transactions relating to its capital stock. In connection with your initial examination of this concern as of June 30, prepare audit working papers showing the extent of your examination of the following accounts:

Capital stock, authorized 10,000 shares, no par value. This account contains two credits, each dated March 1, 1939, as follows:

Subscriptions for 8,000 shares		$110,000
Issued in exchange for net assets of Bauer & Co.—2,000 shares		28,000

Retained earnings
An analysis of this account showed the following:
Previous years

Net income	$214,173	
Cash dividends	160,000	
Provision for reserve for possible future inventory price declines	25,000	

Current year	
Cash dividends $0.30 per share quarterly, paid April, July, October 1; declared in month preceding	$ 9,000
Regular quarterly dividend declared in December	3,000
Extra dividend declared in December	5,000
Net income	24,463
Reduction in reserve for possible future inventory price declines	10,000

All transactions requiring the approval of the Board of Directors have been approved.

Original subscriptions were either paid, or the stock resold for the balance due.

14 · Revenues and Incomes

As has been suggested at various points in earlier chapters, the income statement today tends to be more important than the balance sheet to the creditor or investor. Accordingly, the income statement is usually given more emphasis than the balance sheet by most accounting texts and accounting instructors. Yet in this and other auditing texts the reader will customarily find only one or two chapters devoted to the examination of the income statement, and as in this book, these chapters are usually relegated to a position near the end of the book.

This apparently anomalous situation can be explained and even justified to a considerable extent. As has already been pointed out, auditing had its initial growth at a time when most credit was short term and creditors looked primarily to the relationship of assets and liabilities as an indication of credit worthiness. Thus the first independent audits were usually organized around the verification of the balance sheet, and the income statement received only enough review to show that it had not caused any distortion of the balance sheet. Although the examination of the income statement has expanded considerably since the early days of auditing, most auditors follow the original custom of organizing the examination around the balance sheet, supplementing the balance sheet procedures with other procedures designed to verify related income statement accounts. This same organization and approach is therefore reflected in most auditing texts.

The following comments suggest some of the reasons that the two chapters of this book dealing with income statement accounts represent a much smaller proportion of the book than the chapters relating to balance sheet accounts:

1. By verifying all figures on balance sheets at both the beginning and end of a fiscal year the net income for the year is automatically verified. There is much more to the income statement than merely

the net income figure, but at least the balance sheet verification helps to prove the correctness of the figure which summarizes all other figures on the income statement and is the single most important figure.

2. Many income statement accounts are completely verified in connection with the verification of related balance sheet accounts. Examples would include losses on bad debts; depreciation expense; payroll, property, and income tax expense; interest income; interest expense; and gains or losses on disposition of investments or plant assets.

3. Additional income statement accounts are partly verified in connection with the verification of related balance sheet accounts. The review of internal control concerning such items as cash, inventories, receivables, and liabilities also covers much of the internal control over related income and expense accounts. Also, cut-off tests of transactions affecting the above asset accounts simultaneously verify the cut-off of corresponding income and expense accounts.

4. Each type of balance sheet account requires a separate chapter because the valuation problems and the audit objectives and procedures vary so greatly. Income items, on the other hand, tend to be relatively similar, as do expense items, and the audit objectives and procedures are relatively similar for items within each of the two groups. Furthermore, to the extent valuation problems are involved, those will have been covered in connection with the balance sheet accounts.

5. Although certain types of fraud may affect income and expense accounts, the effect will ordinarily be only incidental to the theft of an asset, and such defalcations are best discussed in relation to the asset account. Management fraud designed to conceal the true results of operations does not usually involve the theft of any assets; however the double entry system results in erroneous balance sheet figures to offset misstated income or expense figures so that the problem need be covered in only one place—usually the balance sheet. Another reason for approaching such fraud through the balance sheet is that only those items in the final balance need be verified, whereas a full year's transactions would have to be verified in the case of income or expense accounts.

INTERNAL CONTROL

The most important functions of internal control over income are to assure the receipt of all assets and the recording of the resulting in-

come. In the case of manufacturing concerns internal control over income from sales begins with the receipt of the customer's order.

Sales Order Department

In large organizations a separate division of the sales department is usually assigned the responsibility for processing and following up on customers' orders. The special section of the sales department is usually referred to as the sales order department or the customers' order department. A primary responsibility of the order department is to establish control over orders received. If the orders are received on prenumbered forms prepared by salesmen, control is readily attained by accounting for all the blank order forms which have been issued to salesmen. If customers order directly, control may be established by serially numbering the orders as they are received, or by immediately preparing a serially numbered company order form from the customer's order. Records must then be maintained in such a way that each order remains open until the order department receives notice that the order has been shipped and billed.

If customers submit orders on forms supplied by the company (for instance, in the operation of a wholesale grocery business), the original order form can be used in filling the order since there will be complete uniformity in the forms used. In most cases, however, the order department will prepare separate shipping order or production order forms from the various customers' order forms. If orders are filled directly from stock, the order department may first consult the inventory records to be certain all items ordered are on hand before preparing the shipping order. In such cases complete prebilling can be followed, permitting the order department to prepare the final customer's invoice, a copy of which becomes the shipping order.

If products are produced on order from the customer rather than for inventory, a production order is prepared. Since this order must contain all information necessary for the factory to schedule production of the item, the order department must be adequately informed about production requirements and specifications.

As notice is received that an order has been shipped, the open order records can then be cleared. If all items ordered have not been shipped, and company policy is to "back order" such items, the order department should compare the record of shipment with the original order and prepare a new shipping order for all items omitted. This new order should then be subject to all the controls of an original order.

Credit Approval

Since most sales other than retail sales are likely to be on a credit basis, the approval of the credit department must be obtained sometime before an order is finally shipped. If credit rejections occur quite frequently, the credit check should probably be made before the order department processes the order. In other cases, shipping orders are routed from the order department to the credit department, and only those approved and released by the credit department are filled. One company which operated in an industry where competition necessitated that shipments be made as soon as possible found that orders were very seldom rejected for credit reasons. To speed up shipment, all shipping orders were sent directly to the shipping department without credit approval. A copy of the shipping order was, however, sent to the credit department, and in those rare instances when credit had to be denied, the shipping department was merely notified not to ship the goods. Although this arrangement placed some additional burden on the shipping department, considerable benefit was received in the form of faster handling of customer orders.

Shipping Department

A primary responsibility of the shipping department is to see that nothing leaves the company premises except under proper authorization. Such authorization might be a shipping order, an approved debit memo for return of goods to a vendor, or possibly a factory work order covering the removal of a piece of equipment to be sold or junked. The authorizations should, of course, be serially numbered so that the accounting department can subsequently ascertain that a proper accounting charge has been made for every item which left the plant. Preferably, the shipping department should be separate from and independent of the receiving department to prevent goods from being received and shipped without entering into the accounting processes designed to establish control over shipments.

Billing Department

The billing department is usually a part of the accounting department. Except in the case of complete prebilling, when the work is handled by the order department, the principal function of the billing department is to prepare the customer's invoice. Before preparing the invoice, which should be prenumbered, employees of the department must first price the items shipped, extend the price times the number of items shipped, and indicate the terms covering freight

and payment of the invoice. The invoices will then be prepared and totaled, and copies distributed to the customer, the accounts receivable department, and the order department. The accounts receivable copies should be accompanied by a transmittal tape showing the total dollar amount represented by the group of invoices.

Accounts Receivable Department

The accounts receivable department will then post the invoices to the various customers' accounts, proving the total amount posted against the billing department transmittal tape. At some convenient point in this process all invoice numbers should be accounted for.

If only a limited classification is made of sales by department, the sales distribution is often handled through special columns in the sales register. If more elaborate classifications are necessary, the analysis of sales is usually handled as a separate operation. The analysis may involve sorting copies of invoices, preparing columnar sales analyses, or preparing, sorting, and tabulating some form of punched cards.

Miscellaneous Problems

Internal control over retail cash sales was discussed in the chapter on cash. C.O.D. sales are handled in much the same way as regular credit sales except that individual accounts are not ordinarily posted for each sale. Instead, the balance of the general ledger control for C.O.D. receivables is usually supported by copies of invoices covering shipments which have not yet been returned or paid for. These receivables are not, of course, claims against the individual customers. They are claims against the deliverymen or public carriers to whom the goods were released, so the records must be organized in such a way as to show the items included and the amounts due on each group of orders released for shipment and delivery.

Before credit is allowed on a regular or C.O.D. receivable for goods returned, a receiving ticket should be inspected evidencing the receipt of the returned goods. The ticket should then be attached to the authorization for credit. Allowances should be approved by a person of sufficient responsibility who does not directly handle cash or accounts receivable records. Freight allowances granted in accordance with the terms of sale should be approved by a specified employee, who should verify the amount against the paid freight bill submitted by the customer or against a schedule of freight rates.

Incidental income of a business should be subject to as much con-

trol as is possible, although the infrequency of such transactions makes adequate separation of duties rather impractical. Whenever feasible, such income should be determined by the accounting department or reported to it, independently of any cash received. Thus investment income should be scheduled and recorded by the accounting department independently of the treasurer's department. The accounting entries for the income should *not* be based on an advice from the treasurer's department that the income has been received. Proceeds from sales of plant assets should be estimated or determined by contract in advance of the removal of the assets from the plant. If the accounting department is given advance notice of the estimated proceeds, then as soon as the work order for the removal of the assets comes through, the accounting department can check to see that the proper amount of proceeds is received shortly afterwards. The accounting department should also receive advance notice of any sales or shipments of scrap.

Income from vending machines presents special problems of internal control. Under no circumstances should payment for merchandise be made in cash from coins in the machines. Coins should be collected at regular intervals, deposited intact, and credit made to a special account. Payments for merchandise should be by regular company check and charged against the special account to which the collections were credited. These figures should then be analyzed periodically to determine that the reported proceeds bear a reasonable relationship to payments made. If the margin between the proceeds and payments falls below the known difference between unit costs and unit selling prices, there is a strong presumption that income is not being reported or that part of the purchased merchandise is being diverted for personal gain.

Internal Reports

Although major attention should be given in internal reports to the analysis of the principal sources of revenue to a business, incidental income should also be reported. Preferably, the figures on incidental income should be supplemented by information which will enable management to determine in a general way whether the reported income appears to be reasonable in amount and whether all such income has been accounted for.

Revenue from sales should be analyzed and reported in such a way as to give management full information for making sound decisions and exercising effective control over the life blood of the business. Of major importance will be figures for sales by department or by

product. Such an analysis not only makes it easier to detect and localize changes which occur, but if costs can be similarly classified, the relative profitability of the various product lines can also be determined. There is then an intelligent basis for determining which lines should be pushed and which ones de-emphasized or perhaps even abandoned.

The sales manager of a large business will usually want considerable additional sales information. Breakdowns of sales figures by territory, by type of customer, by method of sale, and by salesman are all likely to be helpful to him in evaluating performance, detecting weaknesses, and formulating future plans. In some businesses the gross profit produced by each salesman may be more significant than his total sales. A high sales figure produced by pushing low-margin, easy-to-sell merchandise may be far less desirable than a much smaller sales figure composed largely of high profit items which require more sales effort.

For businesses which produce goods to order rather than for inventory, periodic figures showing the number and amount of orders on hand may be of prime importance to management planning. For businesses which sell from stock, statistics on the number of back orders or the number of items omitted may contain revealing information about sales trends and the effectiveness of the purchasing department in keeping adequate stocks on hand. Information on returns and allowances is important not only because a loss of revenues is involved, but as an indicator that salesmen are "overselling," that orders are being improperly filled, that damage is occurring in transit, or that products are unsatisfactory.

Internal Auditing

The examination of sales and sales activities conducted by the internal auditor should cover such areas as internal check, management reports, and customer relations. The internal auditor should determine that a satisfactory separation of duties is in effect covering handling of customers' orders, shipping, billing, receivables, and authorization of credits for returns and allowances. When sales are made for cash, internal check over such transactions is especially important, and the internal auditor should evaluate the system from that point of view and satisfy himself that there is full compliance with the prescribed system of internal check.

The recording of sales transactions should be tested and detail figures should be traced to account postings and report summaries in order to establish the reliability and accuracy of the reports which go

to management. The reports should also be reviewed to determine that they are presenting all necessary information in the most useful form.

Since satisfied customers are vital to a successful business, the internal auditor may well devote part of his time to a study of customer relations. He should watch for courteous treatment of customers by all employees, salesmen's knowledge of the products they sell to permit maximum servicing of customers' needs, time required to fill and ship customers' orders, and accuracy of filling and billing orders, to mention only a few of the possibilities in the area of customer relations.

The above comments should suggest that the internal auditor's examination of revenues should be on a broad, constructive basis. In addition to testing and appraising the work being done at the time, he should also step back from the details and take an over-all look at the situation, trying especially to determine whether there are things not being done which might aid management or improve operating results. The appraisal of reports going to management, as mentioned earlier, is an example of such constructive activity. Other things the internal auditor should be alert for would include such broad items as the effectiveness of the company's sales and advertising policies and the question of whether all potential income is being developed and recorded. Included in the latter category would be the question of whether scrap, waste, or industrial by-products which are being discarded as valueless may actually have some commercial value, whether all income is being reported and accounted for from such items as scrap sales or vending machine proceeds, and whether employee discount privileges are being abused by employees making purchases for persons outside the family.

STANDARDS OF STATEMENT PRESENTATION

Two forms of the income statement are widely used at present—the multiple-step and the single-step forms. The multiple-step form is the traditional one but the single-step form is becoming quite popular for use in published annual reports. There is no question of standards involved in the choice between the two forms. Rather, the choice must be based on the use to which the statement is to be put. Management and persons experienced in the use of financial statements are likely to find most useful the multiple-step form which presents expenses on a functional basis. The general public, on the other hand, is likely to find the single-step form more meaningful, since

the expenses are grouped according to type of expense—a classification which tends to be more familiar to the average person.

In contrast to the latitude permitted in the selection of the form of the income statement, the following standards pertaining to the presentation of revenues and income should be closely adhered to in order to assure adequate disclosure:

1. Nonoperating, nonrecurring revenues and incomes should be segregated from the regular operating revenues of a business. *Material* nonrecurring items should be taken directly to retained earnings.
2. Revenues should be reported in full and not shown net of cost of sales or other expenses of producing the revenue. (Some businesses prefer to have their published statements begin with the figure for gross margin in order to keep information on sales trends and margin percentages confidential.)
3. Sales may be shown net of returns and allowances unless the amount offset is material.
4. If there are several major classes of revenue, the amount of each class of revenue should be shown separately to give the reader maximum information. (An electric and gas utility might thus show separate revenue figures for gas sales and electricity sales, and a manufacturing company should preferably show as separate figures contract sales to government defense agencies and sales to regular customers.)

Of the foregoing standards, only the first item is of such importance that the treatment of a material item in violation of the standard would be likely to necessitate a qualification of the auditor's opinion. The basis for the qualification would, of course, be that the statements did not present fairly the results of operations in accordance with generally accepted accounting principles.

VERIFICATION OF STATEMENT AMOUNT

The auditor's approach to the verification of income statement items is much different from his approach to the verification of balance sheet items. The difference stems largely from the fact that for the principal balance sheet accounts, such as cash, receivables, inventories, and accounts payable, the transactions for the year are condensed into a final balance which can be verified by reference to underlying data. Sales and expenses cannot be offset, so the balances of those accounts represent the full total of all transactions which

occurred, and it is hardly practicable for the auditor to take the time to verify a sufficient number of those transactions to satisfy himself that the year-end totals are fairly stated.

The auditor's substitute for such detailed verification is to rely heavily on internal control as established by the auditor's tests and review to assure the correctness of the account totals, and to depend on comparisons and scanning techniques to reveal any major errors or inconsistencies. The following factors account for the effectiveness of these techniques:

1. The transactions involved are largely routine and repetitive, and are thus not very susceptible to error.
2. If major errors or changes in classification occur, scanning and month-to-month and year-to-year comparisons can be expected to reveal the situation.
3. Any problems of valuation will have been disposed of in connection with the verification of the balance sheet accounts.
4. The net income figure, which can be verified by the verification of beginning and ending balance sheets, represents the net of the various revenues and expenses and thus serves as a valuable check figure for the operating accounts.

From the above discussion, the objectives of the auditor's verification of the statement amounts for revenues and incomes should be apparent. They are:

1. To substantiate the statement amounts through supporting internal records.
2. To verify that all recorded revenues have been earned.
3. To determine that the classifications of revenues are appropriate, and have been consistently followed.
4. To determine that all income has been recorded.
5. To determine that proper separation has been maintained between operating revenues and nonoperating, nonrecurring gains and income.

Substantiation of Statement Amounts Through Supporting Internal Records

As in the case of balance sheet accounts, the auditor should make tests of the evidence supporting the recorded revenue and income transactions as a means of proving the validity of the final account balances. These tests should cover a selected group of transactions and should encompass every step from the inception of each transaction to the final posting of amounts to the general ledger accounts. In

this way the tests will cover all phases of internal control over revenue transactions and enable the auditor to ascertain the degree of compliance with the internal control measures which are supposed to be in effect.

The extent of the tests to be made will be directly dependent upon the degree of internal control present. When the client has attempted to institute sound internal control, a test of as few as twenty-five transactions selected at random may be sufficient to satisfy the auditor that the internal control is operating effectively. If internal control is weak or nonexistent, the tests may well cover all transactions of one or more months, or perhaps of one or more days selected at random from each month of the year.

Manufacturers and Wholesalers. The verification of selected transactions for a manufacturing or wholesaling concern should begin with the original order received from the customer. The quantity and description of the items ordered should be compared with the related information shown on the copy of the invoice sent to the customer and on the shipping department record. Out-of-stock items which were back-ordered should be traced to the invoice and shipping record covering the back order. Note should be made that credit approval and any other approvals to be given before the order is filled have been placed on the order. The auditor should also determine that the customers' orders (if assigned a serial number) and the prenumbered invoices and shipping notices have all been accounted for, with adequate investigation and explanation of any missing numbers.

Invoice pricing should be verified against price lists, and extensions and footings should be recalculated. Next, the selected invoices should be traced to the sales journal, and if more than one classification of sales is maintained, the appropriateness of the classification under which each invoice was recorded should be judged. The sales record should then be footed and the total or totals traced to the various general ledger sales accounts. For very large concerns with extremely good internal control, the footing of the sales record may be omitted, but totals should nevertheless be traced to the general ledger to establish the true source of the general ledger entries.

Sales returns and allowances should be tested in a similar manner.

Retailers. Good internal control over retail cash sales is essential if there is to be adequate assurance that employees are not diverting cash received to their own use. Internal control tends to be relatively weak in small retail organizations either because there are insufficient employees to permit adequate division of responsibilities, because management is indifferent to the possibility of losses occurring, or be-

cause management has substantial faith in the honesty of those employees who handle cash.

In his tests of the recording of daily transactions and in his over-all observations the auditor should be especially watchful for indications of weaknesses in internal control, such as failure to prepare a sales check for every sale, failure to account for the serial numbers of all sales checks used, failure to control the issuance of sales-check books, alteration or discarding of sales checks, the absence of a review of sales checks for pricing or footing errors, allowing of more than one employee to ring up sales on a single drawer cash register, allowing of visible recording dials of cash registers to be obscured from the sight of management and customers, failure to present cash register receipts to customers, and permitting of employees to have ready access to cash register keys. Such weaknesses in internal control must be compensated for by more extensive testing.

The auditor should determine the exact method by which sales checks are being accounted for, and he should inspect the records kept if a "check-off" plan is followed. He should be certain that missing sales checks are actually being investigated by reference to tissue copies in the sales books or by questioning the sales clerks whose sales books originally contained the missing checks. Written explanations should be available concerning missing sales checks, and the explanations should appear reasonable.

The principal verification work to be performed by the auditor would include tracing entries in the daily sales record to supporting cash register tapes or adding machine tapes of sales checks. The cash register tapes can be accepted without footing them, although the auditor should note by examination of cumulative totals or reference to transaction serial numbers that no sales were recorded between the last entry on one day's tape and the first entry on the next day's tape. Sales checks should be listed on an adding machine by the auditor and his total compared with the client's adding machine tape total for the day's business.

The daily sales record should be footed for one or more months and the monthly totals traced to general ledger postings.

The details supporting sales returns and allowances should be similarly verified, and the auditor should be particularly careful to note that each refund voucher is approved by an authorized person.

Sales Cut-off. Sales cut-off tests are usually made in conjunction with the verification of cash and receivables, and since those tests have been discussed in previous chapters no further discussion is given here.

Verification That All Recorded Revenues Have Been Earned

Ordinarily the auditor's balance sheet examination will cover the problem of whether recorded revenues have been earned. The verification of assets will show whether sales have been realized through the creation of valid assets. The verification of deferred credits should establish the proper amount of unearned income to be deferred to future periods. Beyond these steps, however, the auditor should be alert for any credits to revenue accounts which might represent unearned income. None of the following should be recorded as income until a final sale has been made and the goods or services delivered to the customer: "approval" sales, goods shipped on consignment, sales of coupons or tokens to be redeemed for goods or services, carrying charges, newspaper or magazine subscriptions, advance ticket sales, and transfers of merchandise to branches or subsidiaries.

Determination That Classifications of Revenues Are Appropriate and Have Been Consistently Followed

The auditor's tests of the detailed records of revenue should be adequate to indicate whether revenues are being appropriately classified as they are recorded. The most useful technique, however, for establishing the acceptability and consistency of the client's classification of revenues is the making of comparisons. Total sales as well as sales by product or by department for the current year should be compared with the corresponding figures for the previous year. Variations which cannot be readily accounted for should be carefully investigated and discussed with top officials in the client's organization. The auditor must be satisfied that the variations have not resulted from errors in calculation, recording, or classification, or from misappropriations by employees.

Monthly sales figures are often scheduled in the auditor's working papers, as in schedule 10 at the close of the chapter, to permit a convenient review for month-to-month variations in recorded sales. Variations which might not be large enough to show up in yearly figures may be readily apparent in a monthly comparison. Any abrupt drop or increase in any classification of sales should receive the same careful investigation as variations in annual figures. Variations resulting from strikes in the client's or suppliers' plants, vacations, delivery on a large contract, opening of a new branch, introduction of a new product or new model, seasonal factors, price changes, or changes in the general level of business as a whole (or the particular industry)

should all be relatively easy to account for. On the other hand, if there is no ready explanation for a given variation, the auditor should go back to daily sales totals and the individual transactions in an effort to account for the fluctuation.

If industry sales figures are available, the comparison of such figures with the client's sales is most useful. Contrary trends may be a clue to the need for further investigation of the client's figures. Furthermore, the comparison enables the auditor to better understand the client's position in the industry and to gain an indication of the existence of the problems and distortions which result when company sales are moving ahead or falling behind those of the industry.

Miscellaneous income accounts should not only be reviewed for month-to-month comparisons, but the individual entries should be scanned for any which are of an unusual amount or which have an unusual origin. Such entries should, of course, be analyzed to determine whether they are appropriate and have been made correctly.

Determination That All Income Has Been Recorded

Although the examination of a client's financial statements for the purpose of expressing an opinion on those statements ordinarily does not include responsibility for the detection of fraud, the auditor is nevertheless well advised to be on the alert for any indication that fraud may have occurred. Even though the prevention and detection of fraud is primarily the client's responsibility, it is always embarrassing to the auditor, at the very least, to have a shortage or defalcation come to light after the completion of an audit.

The auditor's principal means of detecting fraud are through his tests of the detailed records and through the comparisons discussed in the preceding section. These procedures should be supplemented whenever possible, however, by any other techniques which are practical and appropriate. Gross margin percentages should always be reviewed, since the withholding of sales can be expected to produce a lower margin of profit as well as lower sales. If only a few items are handled and quantity figures for purchases are readily available they should be adjusted for variations in inventories to arrive at the number of units sold. This figure should then be multiplied by an average realization per unit and the total related to the recorded sales as further indication of whether all sales have been recorded.

Any possible sources of miscellaneous income should be considered. If the auditor notes that scrap results from production, that vending machines are present, or that a catering concern is serving meals to

employees, any income which is produced should be accounted for and traced to the records.

In certain special types of business there are often interesting indirect means of checking on whether all income has been recorded.

Tuition fees. The bursar's record of tuition fees received by a school or college can be verified against the registrar's records of students enrolled, thus making it possible to obtain the practical equivalent of independent verification of the records of income.

Rental income. Physical inspection should be made of rental properties to establish the number of rental units or the number of square feet of floor space. Then, by reference to lease agreements the auditor can determine the amount of rental income which should have been realized during the year. If the recorded amount is less because vacancies occurred, the vacancy periods should be verified against dates on lease agreements, and, if necessary, by written confirmation from the former tenant and the next tenant to occupy the space. Reported vacancies existing at the time of the audit can be verified by inspection of the property.

Hotel room charges. An excellent source of information for corroborating the recorded income from hotel room charges exists in the form of the work reports which the maids file with the head housekeeper. The rooms reported as having been made up can be tested against rate schedules and recorded income as a check on the recording of income by front office employees.

Charity contributions. The use of prenumbered contribution forms is the best method of establishing internal control over contributions made. The auditor should satisfy himself that the forms have been accounted for, and he should test the recap of the amounts shown on the individual cards. If lists of contributors are published, the auditor should make test comparisons between such lists and the recorded income, working from the lists to the records.

Church contributions. Members' pledges and careful accounting for contributions received against those pledges are the best form of internal control over regular contributions to churches. The auditor should consider the desirability of obtaining written confirmations covering unpaid pledge balances. Loose collections should always be kept under the joint custody and control of two church officials. The treasurer should be responsible for overseeing the counting of the funds and making the deposit, with the recording secretary bringing the deposit onto his records solely on the basis of the receipted bank deposit slip.

The auditor should review the amounts of weekly loose collections for any unusual variations, and the amounts should be related to the

attendance records maintained by the head usher. If there is any indication of irregularity (even churches are not immune), there is no way in which the auditor can prove what has occurred, but he should certainly make strong recommendations concerning possible improvements in internal control, and he may also wish to suggest certain changes in personnel.

Determination That Nonoperating, Nonrecurring Gains and Income Have Been Properly Separated

Minor amounts of regularly recurring income not related to the regular operations of a business should be reported in the income statement under a separate heading following the figure for income from operations. Typical items would include income from investments, cash discounts earned, and incidental gains from the disposition of property. The verification of these items has been covered in earlier chapters.

Material amounts of nonoperating, nonrecurring gains or income should preferably be credited directly to retained earnings to avoid distorting net income, and any taxes relating to such items should similarly be taken to retained earnings. If the items are reported in the income statement they should be shown net of taxes after the figure for net income for the year, and the final income statement figure should be clearly labeled as being the balance of net income after the special credit. The verification of the amounts involved will usually be handled in conjunction with the verification of the related balance sheet account.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of revenues and income appearing in *Case Studies in Auditing Procedure*, Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Net sales	$800,000
Net income	53,000
Total assets	565,000

The sales record is a binder of copies of sales invoices. The shipping clerk sends shipping memoranda directly to the billing clerk, who pre-

pares the invoices. Prices and description are taken from the customer's order, and quantity figures are taken from the shipping record. The billing clerk prepares for the president a cumulative record for each month showing orders received and the dollar value of shipments. Each quarter the billing clerk prepares a listing of unfilled orders and reconciles the total with the unfilled order balance based on the monthly figures reported to the president.

The auditor proved the sales total for one month in each quarter by preparing an adding machine tape listing of the invoice copies. Quarterly sales were compared with the total shipments reported to the president. During the observation of the physical inventory the auditor prepared a record of all items packed for shipment, and these items were traced to sales invoices recorded in the subsequent period.

Case B (Loading and Hauling Equipment Manufacturer)

Net sales	$4,500,000
Net income	370,000
Total assets	3,438,000

Sales and cost of sales accounts are maintained for each class of product sold. Sales terms are 2/10, n/30.

The auditor prepared tape listings of duplicate sales invoices for the months of May, November, and December. These totals were then compared with postings to the sales accounts. The numerical sequence of the invoice copies was verified. Returns and allowances were similarly verified.

Sales recorded in the last week of December were traced to shipping data to ascertain that shipment occurred in December. Fifty of the larger sales recorded in December were followed through from the customer's order to the receipt of payment as a means of reviewing the client's system of internal control.

Sales returns and allowances recorded in the month following the close of the fiscal year were examined for possible significant items relating to the year under review. The ratio of returns and allowances to sales for the current year was compared with the ratio for the preceding year. Since the ratio was not out of line the only further test deemed necessary was to examine credit memos for November and December for proper approval and to trace any returns to the receiving record.

Open sales contracts were reviewed and the sales prices compared with current costs to determine whether any loss would result in filling the orders.

Discounts earned on prompt payment of purchases were related to total purchases and the resulting percentage compared with the corresponding figure for preceding years. In addition, as purchase invoices were reviewed

in connection with other phases of the examination, the auditor noted whether advantage had been taken of all possible discounts.

In the following year the company planned to maintain statistics on the quantities of the various products shipped, and the auditor expected to extend these quantities at sales prices and compare the total with the recorded sales figure as a further test of that figure. The verification of sales and revenues required 3 per cent of the total audit time.

Case C (Department Store)

Net sales	$12,000,000
Net income	750,000
Total assets	5,600,000

Sales checks are prepared in four copies on prenumbered forms. Although the issuance of books of sales checks is not controlled, as soon as a sales check from a new book appears in the day's business the sales audit department begins to account for the serial numbers of the checks. All missing numbers are traced daily. The sales audit department also checks footings and extensions of all sales checks in excess of a certain amount and test checks the figures on sales checks of a smaller amount.

The sales checks are totaled by department, by type of sale (cash, charge, C.O.D., installment, or layaway), and by sales clerk. The departmental figures are used in connection with the inventory statistical records, the figures by type of sale are used to control the assets received, and the figures by sales clerk are used in figuring commissions. The sales audit figures are compared with similar figures developed by other departments. Cash sales should agree with cash figures determined by the cashier's department from cash register tapes; figures for other types of sales should balance with posting machine totals derived by the receivables department; figures by sales clerk should agree with the daily sales tallies prepared by the sales clerks.

Sales returns, which must show receipt of the merchandise and approval of a designated official, are handled in the same way as sales.

Monthly reports issued by the sales audit department are checked by the accounting department to reports issued by other departments.

By inquiry, observation, and various tests the auditor ascertained that the important points of internal control in the procedures described above were actually in effect. To gain further assurance that footings and extensions on sales checks were being verified, the auditor reviewed correspondence with customers arising out of errors located in one week. Also, fifty sales return checks were selected at random and noted for evidence of approval and return of the merchandise. The totals of sales breakdowns by department and by type of sale were compared for three days to be sure

they were in agreement. The daily totals were then traced into the monthly sales summary, the summary was footed, and the monthly totals were traced to general ledger postings. In each of the other months, one day's sales totals were traced to the monthly summary. The auditor also ascertained that the accounting department regularly compared the sales summary figures prepared by the sales audit division with cash sales receipts and charges to customers' receivables.

The above work was done as part of the preliminary review of internal control during August and September. After the close of the fiscal year the client prepared the following schedules of sales and sales returns for the auditor:

1. Breakdown by month for the current and previous year, with percentage of increase or decrease.
2. Breakdown of yearly totals by types of sale.
3. Breakdown of yearly totals by owned and leased departments.
4. Number of transactions and amount of the average sales check for the current and preceding year.
5. Total net sales for the current and preceding year, by department, with amount and percentage of increase or decrease shown.

Schedules were also prepared showing the percentage of cumulative mark-on and the percentage of gross margin for the current and preceding year.

The auditor reviewed these schedules and obtained satisfactory explanations for any wide fluctuations from month to month and between the current and preceding year. The total sales for the year as shown by the schedules were reconciled with the total sales shown by the inventory statistical records. The total sales figure for each of the types of credit sales was reconciled with the total debits to the respective receivables control accounts. The auditor made certain that leased department sales and installment sales (but not carrying charges) were included in the sales figures and that no sales of store property or other extraneous items were included. He also ascertained that materials purchased and then sent and billed to manufacturers for processing were credited to purchases and not shown as regular sales.

Commissions on leased department sales were included in gross margin, the actual sales were included with regular sales, and the difference was included as cost of sales. Contracts with the leased departments were reviewed, and the auditor ascertained that commissions had been computed in accordance with the contracts.

The client prepared schedules relating to carrying charges, discounts on merchandise purchases, and discounts on expense purchases. These schedules were reviewed to ascertain that the transactions appeared to be regu-

lar and showed no unusual variations. Department statistical records were reviewed for any variations between departments as to the percentage of discount earned. The auditor also noted that the practice of previous years was followed of showing discounts on merchandise purchases as a credit to gross margin, and discounts on expense purchases as an item of trading income, along with carrying charges on installment sales, income from vending machines, sales of salvage and waste paper, unclaimed salaries, and other similar items.

The auditor inquired into the method of handling sales of salvage to be certain that safeguards existed to ensure that all proceeds of such sales were received by the client. A representative number of such sales were examined to determine that proper authority had been given for the sales and that the agreed-upon sales price was received in cash or charged to accounts receivable. Other trading income accounts were examined and schedules prepared covering any important amounts.

Nontrading income included such items as interest or dividends, profit on sales of securities, and other nonrecurring items. These accounts were examined and schedules prepared covering any important amounts. Operations were reviewed to determine that all income earned during the year was received and recorded.

Machine Products Co.
Sales

12/31/56

J.A.S. 1/7/57

	Heavy Machines	Light Machines	Parts	Total	
Sales, 1956					
January	301 816 42	511 296 28	76 243 19		
February	299 628 27	509 381 42	75 145 28		
March	312 246 91	520 847 63	80 041 77		
April	315 029 61	524 632 48	81 493 52		
May	349 704 92	529 278 47	79 216 73		
June	368 426 73	542 994 32	80 923 47		
July	351 423 89	529 238 41	81 153 24		
August	350 778 45	537 103 91	79 342 51		
September	354 214 86	532 276 24	81 313 48		
October	369 127 82	536 025 36	79 615 28		
November	349 294 42	537 845 26	82 698 53		
December	432 391 48	544 772 53	86 242 80	1 063 406 81	to G
Total	4 154 083 78	6 345 692 31	963 429 80	11 463 205 89	to P/L
Returns and allowances	3 862 41	7 132 13	1 473 69	12 468 23	to P/L
Net sales, 1956	4 150 221 37	6 338 560 18	961 956 11	11 450 737 66	
Net sales, 1955	3 448 143 68	6 092 803 93	783 420 84	10 524 368 45	
Increase (decrease)	702 077 69	245 756 25	(21 464 73)	926 369 21	
% increase (decrease)	20.4	4.0	(2.2)	8.8	
Final cost of sales at standard, 1956	2 747 446 57	4 479 560 00	629 119 30	7 856 131 87	Per 20
Gross margin, 1956	1 402 774 80	1 858 994 18	332 836 81	3 594 605 79	
Gross margin, 1955	1 155 512 81	1 757 237 16	339 280 19	3 252 030 16	
Increase (decrease)	247 261 99	101 757 02	(6 443 38)	342 575 63	
% gross margin to sales, 1956	33.8	29.3	34.6	31.4	
% gross margin to sales, 1955	33.5	28.8	34.5	30.9	

① Test of supporting sales details –

25 consecutive invoices were selected from the month of October for verification. Customers' orders and shipping notices were inspected in support of the invoices, and prices, extensions, and footings were verified. The invoices were traced to sales journal entries and the sales classifications reviewed. The sales journal was then footed and the totals were found to agree with the postings to the sales accounts.

Sales returns and allowances –

Sales returns and allowances were in line with the previous year, and no further verification was deemed necessary. Returns and allowances are approved by the controller and the vice president in charge of sales.

Sales trends –

Sales increases reflect the industry-wide trend except that the heavy machines line, which is still relatively new, showed a better-than-average increase, indicating continued good acceptance of this line. The decline in parts sales resulted from the fact that three of the company's dealers made heavy purchases of parts in 1955 in connection with establishing parts inventories to give faster service to their customers.

Gross margin –

The improved overall rate of gross margin is the result of lower per unit overhead costs which in turn resulted from a combination of increased volume and relatively fixed overhead costs. Another factor in the general 0.5% increase in the rate of gross margin was the proportionally greater increase in sales of heavy machines, which carry a slightly higher margin.

Review Questions

1. Why, in spite of the relative importance of the income statement, can an auditing text successfully cover the verification of income statement accounts in only two chapters?

2. What are the more important functions of the sales order department?

3. What is the main responsibility of the shipping department?

4. How is incidental income of a business best controlled?

5. Why should the margin on vending machine sales be computed regularly?

6. What types of analyses can be given in internal reports on sales which will be of assistance to management?

7. What are some of the causes of excessive returns and allowances?

8. State three principal areas that should be covered by the internal auditor in his examination of sales and sales activities.

9. What are some of the aspects of customer relations that should be reviewed by the internal auditor?

10. List the points which should be considered in presenting revenues and incomes in the income statement.

11. Why can the auditor limit his examination of revenues to a review of internal control and comparison and scanning techniques, assuming that internal control proves to be satisfactory?

12. What are the auditor's objectives in verifying revenue and income accounts?

13. Describe the auditor's verification of the handling of sales transactions which he selects for his tests in the audit of a manufacturing concern.

14. What weaknesses in internal control should the auditor watch for in examining a retail organization making cash sales?

15. How can the auditor determine whether sales may have been recorded on a cash register between the last entry on one day's tape and the first entry on the next day's tape?

16. What are some of the types of credits to revenue accounts which might involve unearned income?

17. What types of comparisons should the auditor make in satisfying himself that revenues have been appropriately and consistently classified?

18. In what ways can the auditor detect fraud involving the failure to record all sales?

19. How should the auditor go about determining that all rental income has been recorded?

Questions on Application of Auditing Standards

20. Give the audit steps you would follow in verifying the amount of profit to be recognized for the current year on a partially completed fixed-price construction contract. What evidence would you expect to examine?

21. How would you verify the following account appearing on the trial balance of the Johnson Company? Would you recommend any adjustment? Justify any such recommendation.

Miscellaneous Income

		Debit	*Credit*	*Balance*
July 3	Gain on sale of G.M. Common Stock ..	$ —	$1,365	$1,365
Sept. 7	Gain on sale of Johnson Co. Stock	$ —	2,316	3,681

22. Suggest various ways in which a branch manager of a retail chain store, who receives a bonus based on the store's profit, might attempt to inflate that profit. All accounting for the store is done locally under the manager's supervision.

23. Your client, Fly-by-Night Airlines, Inc., has received a retroactive adjustment of its income for carrying U.S. mail for the past three years, involving an additional payment to the company of $3,000,000 allocated about equally to each of the years. Your client realizes that the entire amount cannot be reported as income of the past year because such treatment would materially distort the net income. On the other hand, the client does not want the additional income buried as a credit in the statement of retained income. Suggest another alternative.

24. Verification of balance sheet accounts often involves verification of income statement accounts at the same time. List five income or expense accounts which are fully verified as a part of verifying related balance sheet accounts and five which are partly verified in that manner.

25. Your client states that the income statement which you include with your audit report is to begin with "Gross profit on operations." The client gives as the reason for this request the fact that it would be harmful to the company if competitors were to be able to obtain information concerning the amount of the company's sales and its rate of gross profit. Would you be willing to give an unqualified opinion on such a statement? Explain.

26. Under what circumstances would you recommend the use of a single-step income statement? A multiple-step statement?

27. Should any objection be raised to simply reporting net sales, with no indication of the amount of returns or allowances? Explain.

28. How would you make tests to ascertain that all income had been recorded in an examination of a hotel bar serving liquor by the drink.

29. What does the auditor gain by footing all books of original entry for one month, and tracing all postings for the month from the books of original entry to the ledger?

30. Your client uses a standard cost plan whereby all materials drawn from stock are charged to work in process. Of the materials charged, the amount resulting in good production, including a standard allowance for scrap and spoiled material, is transferred to finished goods. Any remainder is charged to a materials use variance account. Standards are revised annually.

During the year under examination, your client developed some changes which resulted in more efficient use of material, and as a consequence the material use variance account had developed a sizeable credit balance by the end of the year. The client looks upon this balance as a gain from increased efficiency and proposes treating the balance as an item of income on the income statement. Would you agree to the client's proposal? State your reasons. If you would not agree, what treatment would you recommend?

31. Review of the monthly sales figures for product Y produced by your client

reveals that a greater than seasonal decrease in sales occurred in the last three months of the year. What steps would you take in view of this fact?

32. In the department store case study, no control was maintained over the issuance of sales-check books, but control was established as soon as the first sales check from a new book appeared in the day's transactions. Explain the weakness in this arrangement by showing how an employee could readily defraud the store.

33. Why should sales clerks not be permitted to have the keys which are used to "read" or clear the cash registers?

Problems

34. While auditing an urban bus company in a city of 50,000 population, you encounter the following situation:

1. You have checked an authorization for the purchase of five engines to replace the engines in five busses.
2. The cost of the old engines was removed from property and that of the new engines properly capitalized. The work was done in the company garage.
3. You find no credits for salvage nor for the sale of any scrap metal at any time during the year. You have been in the garage and did not see the old engines.
4. The accountant is also treasurer and office manager. He is an authorized check signer and has access to all cash receipts. Upon inquiry he says he does not recall the sale of the old engines nor of any scrap metal.

Assuming that the engines were sold as scrap, outline all steps which this fact would cause you to take in connection with your audit. Give consideration to steps beyond those related directly to this one item. (A.I.A.)

35. Your client, The Summer Comfort Corp., manufactures air conditioners in various sizes from ½ H.P. to 1½ H.P. The air conditioners are sold to distributors, who in turn sell to retail appliance dealers in their assigned areas. Distributors make the bulk of their purchases during the period from February through August. To induce distributors to buy in advance of the normal purchase period and thus reduce company inventories, which tend to build up under the company's policy of constant year-around production, discounts on list prices are given during certain months, as follows:

September	10%
October	8
November	6
December	4
January	2

The company's fiscal year closes on August 31. In discussions with company officials, you learn that the larger volume of sales this year reduced overhead expenses when figured on a per-unit basis; variable costs per unit changed very little. In view of last year's very favorable sales trend, distributors ordered very heavily during the pre-season period this year; but as the regular sales season progressed it became evident that air conditioners were in over-supply, and sales by The Summer Comfort Corp. to its distributors dropped accordingly during that

period. Sales of units by sizes and certain other information for the current year, as determined from analyses maintained by the company, were as follows:

	No. of Units Sold	*Total Sales*	*Distributor List Price*	*Cost of Sales*
½ H.P.	815	80,096.53	$ 99.60	$ 54,533.28
¾ H.P.	1,521	239,166.24	159.50	170,020.44
1 H.P.	1,648	372,475.36	231.15	246,163.34
1½ H.P.	1,120	330,287.48	299.75	214,905.60

The sales account for the current year appears as follows in the general ledger:

Date	*Description*	*Ref.*	*Dr.*	*Cr.*	*Balance*
Sept.		SR		$ 18,718.42	$ 18,718.42
Oct.		SR		47,835.96	66,554.38
Nov.		SR		78,201.39	144,755.77
Dec.		SR		99,831.56	244,587.33
Jan.		SR		122,293.66	366,880.99
		CR		1,416.90	368,297.89
Feb.		SR		176,785.06	545,082.95
Mar.		CD		586.39	545,669.34
		SR		259,978.03	805,647.37
Apr.		SR		103,991.21	909,638.58
May		SR		41,596.48	951,235.06
June		SR		31,197.36	982,432.42
July		SR		20,909.24	1,003,341.66
Aug.		SR		20,687.24	1,024,028.90

The following information relating to your examination for the current year, is also obtained:

Examination of the cash receipts record for January reveals that the amount of $1,416.90 was received from the sale of an automatic drill press. The general journal also carries the following entry relating to the sale of the drill press:

Accumulated depreciation	$3,153.02	
Loss on disposition of plant assets	$2,116.38	
Machinery		$5,269.40

Examination of the purchase discount account has revealed that there is no entry for discounts taken in March.

The following information is abstracted from the audit working papers covering the previous year's examination of sales:

	No. of Units Sold	*Total Sales*	*Distributor List Price*	*Cost of Sales*
½ H.P.	762	$ 74,361.80	$ 99.60	$ 52,503.05
¾ H.P.	1,428	225,966.72	159.50	164,371.01
1 H.P.	1,560	293,539.60	191.75	239,940.11
1½ H.P.	782	231,394.45	299.75	154,511.25

Net Sales by Months

Sept.	$ 15,042.24
Oct.	30,753.02
Nov.	39,276.96
Dec.	56,157.69
Jan.	65,517.31
Feb.	116,995.22
Mar.	183,849.65
Apr.	91,924.87
May	83,568.48
June	58,497.65
July	41,784.33
Aug.	41,895.15
	$825,262.57

Required:

Using the information presented above, prepare working papers covering your examination of sales and gross margin for the current year. (Assume internal control has already been reviewed and showed no serious weaknesses.)

15 · Costs and Expenses

The standards of statement presentation and the auditor's objectives relating to the examination of costs and expenses are both quite similar to those relating to the examination of revenues and income. The actual audit procedures vary, of course, as do the methods of attaining good internal control, and hence the principal concern of this chapter is with those variations.

INTERNAL CONTROL

Budgets

One of the most useful means of implementing management control over costs and expenses is the flexible budget, adjusted to reflect current conditions and prospects for the immediate future. Budgeting forces persons responsible for the various expense items to analyze those expenses before they are incurred for any indications of extravagance or inefficiency. Then, once the budget is assembled, it gives a warning of pitfalls that may be ahead—expenses failing to move in a proper relationship to sales, departments or products moving into a loss position, asset turnovers slipping below satisfactory levels, or cash balances running above or below minimum requirements, to mention only a few possibilities. Finally, and perhaps most important, the budget gives top officials a meaningful standard against which actual performance can be measured and judged.

Material Costs

In most businesses the cost of materials used is likely to be one of the major costs of doing business. Material costs range all the way from figures as high as 85 per cent of sales in the case of grocery chains, or 75 per cent in the case of meat packers, down to almost negligible

amounts in the case of utilities, such as telephone companies or in other service businesses. The significance of material costs suggests the importance of maintaining adequate internal control over those costs.

The control of material costs begins with the purchase of and payment for the materials, and the record of inventory quantities. These phases of internal control have been discussed in earlier chapters. For businesses engaged in distribution functions, the material costs will move directly from inventory to cost of sales. Cost of sales entries will be based on shipping notices or on reported sales in the case of concerns using the retail inventory method. The cost of sales figures should be classified to conform with sales classifications since the relationship of sales and cost of sales is of major significance.

For manufacturing concerns there is, of course, an intermediate step before material costs reach the cost of sales category. The cost accounting system must be adequate to handle the recording and reporting of all activities occurring during the manufacturing process. Accountability must be established over materials as they move through the manufacturing operations. Other costs incurred during those operations must be accounted for first on a functional basis to aid in controlling those costs. The costs must also be accounted for on a product basis to provide necessary management information on cost trends and relative profitability of the various products. The determination of income is, in turn, largely dependent on the product cost figures developed by the cost accounting system, thus giving further indication of the need for proper accounting for material and manufacturing costs.

Payroll

Payroll costs are another major operating cost, and together with material costs, may represent as much as 90 per cent of the total cost of doing business. Functionalizing and departmentalizing business activities, with proper delegation of responsibility for the control of each of the various segments of a business, are the principal means of controlling payroll costs. These techniques must, in turn, be complemented by adequate internal reports and effective management analysis and follow-up of the reported results.

The mechanics of payroll preparation, recording, and payment are important in assuring adequate records for management information and in preventing payroll defalcations. Required reports to the government concerning employees' earnings and tax deductions have, however, made payroll frauds more difficult to perpetrate and con-

ceal. The following sections describe the various payroll activities and suggest how the responsibilities should be divided to secure maximum internal control.

Employment Activities. Internal control over payrolls should begin at the moment a new employee is hired and continue until the employment is terminated. At the time of hiring, the employee's rate of pay should be established, and the employee should sign a withholding tax exemption certificate and authorize any payroll deductions to be made. In large organizations these details should be handled by the personnel department. In smaller concerns the person who decides whether to employ a job applicant should perform those duties, but in no case should a person be given those responsibilities if he is associated with any phases of the payroll system. After the employment preliminaries have been completed a formal notice should be sent to the payroll clerk or department stating the new employee's name, rate of pay, and any payroll deductions to be made. This notice is an important means of protection against payroll "padding" (placing fictitious employees on the payroll), and the payroll department should not add a person to the payroll except upon the receipt of such authorization.

Changes in an individual's rate of pay should similarly be accomplished through presentation of a properly approved rate change notice to the payroll department. When employment is terminated, again a notice to the payroll department is required. Unless the payroll department is formally notified that employment has been terminated and the employee is to be removed from the payroll, the way is left open for one of the easiest and most convenient forms of payroll padding.

Timekeeping. Timekeeping is the determination of the number of hours or the units of production for which the employee is to be paid. There are numerous variations in acceptable timekeeping practices. Unacceptable practices include combining the timekeeping function with the responsibility for the preparation of the payroll, and permitting employees to report their time or production with no independent calculation or verification of the reported figures.

Among the best timekeeping practices are the reporting of employees' time by their foreman or by a special timekeeper, or the reporting of their production by inspectors who count the number of acceptable pieces completed. Internal control is further strengthened if the reported time can be verified against a time clock record or if reported piecework can be compared with the number of pieces finally completed and added to inventory for each factory order. Variations of these plans would include using a time clock record as the

sole basis of payment, except for possible review and approval of the clock record by a foreman or supervisor, and having the employee make his own report of time or units of production, subject to the approval of his foreman or supervisor.

When time clock records constitute the principal basis for payment there must be strict enforcement of the rule that each employee must punch his own timecard. In some firms, punching another person's timecard constitutes grounds for immediate discharge of the employee committing the violation.

Except as may be required under wages and hours regulations, time records are not ordinarily kept for employees paid by the week or by the month. If such employees are to be docked for time off, their supervisor is usually charged with the responsibility for reporting such time off to the payroll department.

Payroll Computations and Records. A person or department having no other payroll duties should be responsible for the preparation of all payroll records, including necessary computations. Final pay figures should be computed from reported actual hours worked, standard hours of work produced, or number of pieces completed, and from approved hourly or piecework rates. Deductions for withholding tax should be computed based on the authorized number of exemptions for dependents, and deductions for old-age and survivors' insurance (social security) should be computed in accord with the limitation of the maximum amount of wages subject to tax. Other deductions should be based on authorizations filed by each employee.

Records to be prepared by the payroll department after making the above calculations include the pay check or pay envelope, the employee's statement of his earnings, the payroll register, and each employee's individual earnings summary. The record of each employee's earnings and deductions for the year is necessary for the preparation of quarterly and annual tax returns and other reports showing the amount deducted from each employee's pay, such as a report of union dues collected under the checkoff plan. All the above records can be prepared simultaneously by using specially designed forms, special payroll writing boards,* bookkeeping machines, or punched card equipment.

The payroll department as a rule is responsible for preparing the payroll distribution; that is, allocating payroll costs to the various departmental cost and expense accounts. In simple situations departmental payroll totals may provide all or most of the information

* These boards collate the various forms, so that with carbon paper properly inserted all of the forms are prepared simultaneously with one writing of the information.

necessary to make the distribution. In cases where operations are slightly more complicated there may be service departments, such as a maintenance department, and payroll costs of such departments must be allocated to the various operating departments for which the work was done. In such instances, the workmen of the service department must present an analysis of their time showing on which jobs they worked so that the payroll department can distribute the payroll costs to the proper departments. The necessity of providing such detailed information on the allocation of workers' time reaches a peak in manufacturing concerns with extensive cost systems, particularly if job costs are to be reported.

Disbursement of Funds. Payment of employees by check has many advantages from an internal control standpoint over payment by cash, but other factors, such as limited check cashing facilities, may necessitate the use of the less desirable plan. If payment is to be made by check, a separate payroll account should be used and the checks should carry a printed notation limiting the amount for which the checks can be drawn. The purpose of such a limitation is to prevent major losses from checks being altered by raising the amount.

Under conditions of good internal control, the official who signs the check transferring funds to the payroll account need only note that the check agrees with the total of the payroll register. If internal control is weak the individual amounts for each employee should be reviewed, and the individual pay checks or pay slips should be compared with the payroll before the pay checks are signed or the pay slips released for stuffing the pay envelopes.

In no case should signed payroll checks or pay envelopes ever be returned to the payroll department for distribution to the employees, nor should the checks or envelopes be given to foremen or supervisors for distribution. Either of these practices amounts to an invitation to any dishonest employees to engage in payroll padding. A person who has no other responsibilities relating to payroll or supervision of workers should be designated paymaster. His principal responsibility should be to deliver each employee's pay personally to the employee. "I'll take Charlie's check for him" may be a sincere offer to be helpful, but it may also be the final step in a payroll defalcation!

As a further measure of internal control, some concerns have the employee sign a receipt for his pay, but this precaution appears unnecessary if payment is by check and the employee can prove his identity to the paymaster by a badge or other means. Undistributed pay checks or envelopes should be listed and turned over to the cashier or other appropriate person for distribution to the employees when they call for them. The employees should then sign receipts

when they call for their pay. After the lapse of a reasonable period of time the list of unclaimed wages should be reviewed by the accounting department, and any items not distributed and receipted for should be set up in the accounting records as a liability or taken to income.

Other Operating Costs

There are many other operating costs in addition to material and payroll costs, but they are usually of secondary importance. Their secondary importance does not, however, mean that internal control over those costs can be ignored.

Expenditures for freight and express should be carefully checked against tariff schedules in order to ascertain that the correct and most advantageous rate was obtained. For companies which do not have their own traffic manager, or traffic department, freight auditing specialists can be engaged to do this job. Freight and express charges should be accounted for and reported to permit proper control at top levels and so as not to distort operating results.

If electricity, fuel, or water are major items, they should be separately metered to the various operations in which they are consumed. Monthly bills should be carefully audited before they are paid since the computations are often quite involved and thus easily subject to error. For instance, commercial users of electricity are billed not only on the basis of the amount of electricity consumed but also on the basis of load and demand factors.

The control over repair and maintenance costs, through means of a system of work orders, was discussed in the chapter on plant assets. Such items as office supplies, postage, insurance, traveling and entertaining expense, and taxes were discussed in the chapter on other assets.

Any expenditures entailing substantial individual outlays or reflecting policy decisions to be made at the highest level should be authorized by the board of directors. Included in this group would be officers' salaries, directors' fees, legal and auditing fees, and charitable contributions.

Internal Reports

The income statement, usually prepared on a monthly basis, represents the summation of all operating results, and should be prepared in such a way as to be of maximum value to the president and board of directors. For the statement to achieve maximum utility, figures

should cover both the month and the year to date and they should be reported so as to permit ready comparison with budgeted amounts or standard costs and with figures for preceding periods.

Supporting the income statement should be a top level report showing all expenditures classified on a responsibility basis. The following headings suggest the possible arrangement of such a report:*

Total expenditures:
- Departmental controllable expense—
  - President's Office
  - V.P. production
  - V.P. sales
  - V.P. finance
  - V.P. personnel
- Noncontrollable expenses—
  - Depreciation
  - Taxes
  - Insurance
- Productive payroll
- Material purchased

Disposition of total expenditures:
- Standard cost of sales
- Cost variation
- Inventory changes
- Selling expenses
- General and administrative expenses
- Costs capitalized

Each of the top executives listed above under departmental controllable expenses should in turn receive a more detailed report showing a breakdown of the expenses for which he is responsible, classified in accordance with the responsibilities of those persons immediately under him. For instance, the vice-president in charge of production might receive the following report:

Productive labor
Controllable expenses—
- Vice-president's office
- General superintendent's department
- Production control
- Purchasing
- Maintenance
- Tool room
- Inspection
- Receiving
- Shipping
- Stores

A report showing a further breakdown of expenses would be prepared for each of the activities under the vice-president. Thus the general superintendent would receive a report summarizing the productive payroll and the controllable expenses in each department under him. The foreman of each of these departments would, in turn, receive a breakdown, such as the following, showing the expenditures for which he is responsible:

* This material is adapted from "Responsibility Accounting," by John A. Higgins, appearing in *The Arthur Andersen Chronicle*, April, 1952.

Productive labor
Controllable expenses—
Supervision
Setup
Repair and rework
Overtime premium
Supplies
Small tools
Other

The preceding discussion obviously applies only to relatively large manufacturing concerns. On the other hand, the principles of reporting by functional activity apply to even the one-man business. The sole proprietor should have comparative figures to analyze the success of his business activities, and to be of maximum value these figures should be broken down to show such functional expenses as material costs, selling expenses, general expenses, noncontrollable expenses, and income taxes. Although budgets and standard costs will be beyond the realm of practicality in his case, the sole proprietor can, nevertheless, often obtain comparative data for his classes of expenses in the form of percentages of net sales for similar businesses. By comparing these percentages with those for his own business he can tell whether his costs and expenses are in line with those of similar businesses. The figures to be used in making such comparisons can usually be obtained from the Department of Commerce or from a trade association for the particular type of business.

Internal Auditing

The internal auditor's principal concern in his examination of costs and expenses should be the minimization and control of those items. Other phases of his work will, of course, aid him in attaining that objective. The validity and propriety of many of the expenditures which result in expenses will have been tested in connection with the examination of cash, inventories, and accounts payable. Payrolls represent a special problem, and in view of the usual importance of payroll as an item of cost and expense the internal auditor should give close attention to such expenditures. The system of internal check over payrolls should be studied for possible weaknesses, and sufficient tests should be made to show whether the system is being followed in practice. In addition to making tests of recorded payroll data against timecards or piecework records, approved rates, and payroll deduction authorizations, the internal auditor should test the various extensions and footings. He should also accompany the paymaster as pay checks are distributed, noting whether proper procedures are being followed. In the course of the above work the internal auditor should watch for wages and hours law violations,

failure of employees to observe regulations concerning the punching of timecards, and any other payroll deficiencies.

Since management controls costs and expenses largely through internal reports, the internal auditor should give close attention to the reliability and usefulness of those reports. Reports should contain neither too much nor too little detail since either condition can destroy their effectiveness and usefulness. The classification and distribution of expenses in the records should be tested and reviewed for propriety, and miscellaneous expense accounts should be analyzed in order to detect any items improperly charged to those accounts. The account totals should then be traced to the various company reports. Any inconsistencies detected by the internal auditor in the classification of items in the accounts or in the preparation of the various reports of costs and expenses should be noted. If the inconsistencies are such that they would materially affect comparisons with past figures, management should be informed of the situation since the misleading comparisons might result in costly incorrect decisions.

If budgets or standard costs are used the preparation of these figures should be reviewed by the internal auditor. Variances from budget or standard should be investigated, and the explanations given to management by operating personnel as to how the variances arose should be compared with the internal auditor's own conclusions concerning the causes of the variances.

STANDARDS OF STATEMENT PRESENTATION

The standards for the presentation of costs and expenses in the income statement are based on the same considerations as the standards for the presentation of revenues and income.

1. Nonoperating, nonrecurring expenses and losses should be segregated from the regular operating expenses of a business. *Material* nonrecurring expenses or losses should be taken directly to retained earnings.

2. Significant expenses should be given as separate amounts in the interests of adequate disclosure. Cost of sales, depreciation and depletion, interest expense, and Federal income taxes are items which are normally shown separately.

3. The amount of Federal income taxes shown as an expense should be based on transactions reflected in the income statement, except for minor recurring differences resulting from differences between book and taxable income. If the amount shown for Federal

income tax expense differs materially from the amount shown as a liability, as when income taxes are apportioned to expenses or incomes not appearing in the current income statement, or when there has been a carry forward or carry back of losses, the explanation for the difference should be given.

VERIFICATION OF STATEMENT AMOUNT

The auditor's verification objectives concerning losses, costs, and expenses bear a close relationship to the objectives in the verification of revenues and incomes. The objectives are:

1. To substantiate the statement amounts through supporting internal records.
2. To verify that costs and expenses have been properly matched with the revenues which they have produced.
3. To determine that the classifications of costs and expenses are appropriate and have been consistently followed.
4. To determine that all losses have been recorded.
5. To determine that proper division has been maintained between operating expenses and nonoperating, nonrecurring losses and expenses.

Substantiation of Statement Amounts Through Supporting Internal Records

Since most expenses are recorded through the voucher register, or the cash disbursements record if expenses are not recorded until they are paid, the auditor's examination of supporting internal records may well begin at that point. Selected entries should be traced to the supporting vouchers, which should be reviewed for indication that the various required verifications have been made and necessary approvals given. Underlying invoices and receiving memos should also be inspected, and, from the descriptions given, the auditor should determine that the expenditures were charged to appropriate accounts as they were recorded in the book of original entry. The voucher register, or cash disbursements record if expenses are distributed in that record, should then be footed and crossfooted for a selected month (or months) and the totals traced to the various accounts involved.

The above procedures will usually be performed as a phase of the review of internal control. If the tests show that internal control is not functioning as intended, then additional items may have to be tested

to compensate for the weaknesses disclosed. The procedures must also be coordinated with similar procedures mentioned in other chapters to prevent overlapping and duplication. The reader should recognize that the review of vouchers discussed in the preceding paragraph tends to cover the same types of items as were discussed in connection with the verification of cash disbursements, inventories, plant assets, and accounts payable.

Cost of Sales. For clients who maintain their inventory records on a periodic basis, the above tests of expense account transactions would cover the purchases account, and, assuming that the beginning and ending inventories have been verified in connection with the examination of the balance sheet, no further work would be necessary to substantiate the cost of sales figure. For manufacturing concerns, however, tests would have to be made of the processes underlying the development of the periodic entry for cost of sales. These would include ascertaining the cost of goods shipped and billed and summarizing those cost figures to correspond with the breakdown of sales.

In the case of companies following the retail inventory method, the statistical ratios will be tested and reviewed in connection with the verification of inventory pricing. The auditor can then readily verify cost of sales figures by applying the appropriate ratio to the reported sales. The cost of merchandise mark-downs is closely related to cost of sales, and tests should also be made of this figure. Departmental mark-down reports can be verified by the examination of price tags for merchandise still on hand, and by comparison of original selling price figures against the selling prices noted on the purchase invoices. The difference between the old and new selling price of each item should then be computed and multiplied by the number of items on hand. Final tests would cover the summarization of the total mark-down amounts and the reduction of those totals to cost by application of the statistical cost ratios.

Payrolls. The examination of selected payroll transactions as a verification of payroll expense is a subject which has not been touched upon in previous chapters. Ordinarily the auditor's tests will be limited to the details relating to one payroll period, but the tests may be more extensive in special situations.

Factory payroll. The tests of the details of the factory payroll for a selected pay period should usually cover a group of workers selected at random from all departments. If all departments pay on approximately the same basis, however, the auditor may select the entire group of workers from one or two departments. For the workers selected for the test the auditor should trace the figures for hours worked or pieces produced as shown by the payroll register to the

source records. The source records might be timecards, timekeepers' reports, job time tickets, or inspection reports showing number of pieces completed. In some cases there may be both a timecard and job time tickets—the latter for the purpose of showing how the worker's time is to be charged. Since the job tickets will probably be filed away by job number, they are not likely to be readily available for use by the auditor as a double check of the workers' time. The additional check is not necessary, however, particularly if the payroll department compared both time records when the payroll was prepared.

Hourly wage rates should be compared with rate authorization records. The payroll department should have the authorizations in its files, but if a duplicate record is maintained in the personnel department the auditor's verification is strengthened if the comparison is made against the record which is outside the payroll department. The wage rates should also be tied in with the provisions of any union contracts which have been signed. The entire contract should be read, and any provisions which affect the client's financial liabilities to the workers should be noted in the working papers. Included might be provisions relating to the payment of overtime or shift premiums, vacation pay, allowance for uniforms or safety devices, sick benefits, or insurance premiums to be paid by the employer. All these provisions would, of course, affect payroll figures, and the auditor should satisfy himself that they have been properly carried out.

If payment is made on a piecework basis or on a standard hours plan, the rates used should be traced to the company's official rate books or standard cost sheets.

The auditor's next step should be to verify the extension of hours or pieces times the rate to obtain the figure for gross earnings. Overtime or shift premiums and special allowances would also enter into the picture at this point, and should be verified.

Deductions would be the next items to be verified. The verification of the Federal withholding tax would involve reference to the W-4 form filed by the employee and to a table of withholding tax figures. The amount of F.I.C.A. tax withheld should be verified by applying the 2 per cent rate to the gross earnings. If the wages are shown to be exempt because the worker has already earned $4,200 in the year, the employee's earnings for the year to date should be verified by reference to the individual earnings summary for that employee. Other deductions for such items as insurance, savings bonds, or union dues should be traced to the copy of the authorization for those deductions signed by the employee.

To complete the verification of the payroll register the worker's net

pay should be calculated, and then the register should be footed and crossfooted. The totals should be traced to the general ledger postings. Paid payroll checks will have been tested against the payroll register in connection with the examination of cash disbursements.

The total payroll amount will usually be charged to a payroll account and then distributed to the appropriate expense accounts by a separate journal entry showing the classification of the payroll charges. The payroll distribution figures should be tested against timecards, job tickets, or other records showing to what accounts the workers' time should be charged. The distribution will be further reviewed as discussed under the objective pertaining to the classification of expense charges.

Office payroll. The procedures for testing the office payroll are quite similar to those discussed above for factory payroll, although office workers do not usually punch timecards. One procedure is to have them write their time in and time out opposite their names on a time sheet. If no record of attendance is kept, the supervisor should be required to prepare an absence report or time-off report if the payroll department is to dock the employee for the time missed.

Information for the distribution of payroll charges to the proper expense accounts is usually obtained simply by grouping the employees by department on the payroll register. The subtotal for each group then becomes the expense charge to that department.

Officers' salaries. Officers' salaries should be authorized by the board of directors. A schedule similar to 30-1 should be prepared listing each officer's salary. The schedule should carry a cross reference to the work paper schedule containing the abstract of the minutes of the directors' meeting at which the salaries were approved. The total officers' salaries should be reconciled with the corresponding charges to the various expense accounts.

Observation of payoff. In situations where internal control is weak, or where the auditor may wish to obtain additional evidence that payroll disbursements are being made only to persons actually working for the client, the auditor should observe the distribution of pay checks or pay envelopes. If the company is so large that it is not practicable for the auditor to observe the distribution of the entire payroll, one or more complete departments can be selected for the test.

The auditor should not announce in advance his intentions to observe the payoff. Rather, he should wait until the payroll checks or envelopes are ready to be distributed, and he should assume control over the checks or envelopes at that time. Before the distribution begins, the auditor should compare each worker's pay with the amount

shown by the payroll register, and he should be certain that a check or envelope is present for each entry on the payroll register. The footings of the payroll register should be verified as further evidence that everything is proper.

The auditor should then turn the pay checks or pay envelopes over to the custody of the paymaster, but he should keep them under his observation and control. If company procedures require that an employee present proper identification before his pay is released to him, the auditor should be sure that the required procedure is being followed. If such a procedure is in effect, and if the auditor is satisfied that each employee receives only one check or envelope, he can be relatively certain that no irregularities exist with respect to any of the items he has observed being distributed.

In smaller companies the paymaster may be expected to know each employee personally, so that no further identification is required. In such cases the auditor should have an additional company employee, who has no connection with payroll, be present to further identify each employee as he receives his pay. If this arrangement is not followed, the auditor should at least note that no employee presents himself a second time and receives a second check or envelope. If there is any doubt in the auditor's mind about the identification of an employee, the auditor should not hesitate to ask for adequate evidence of his identity.

When employees are paid in cash the auditor should note that each employee signs a receipt before his envelope is released to him. In some cases the receipt may be the stub of his timecard which the employee has retained. These should not be signed in advance, but if this sound rule has not been followed, the auditor should ask each employee to sign the receipt a second time, in the presence of the auditor. To be certain that no payroll manipulations have occurred involving "shorting" employees' pay envelopes, the auditor should ask each employee to count his pay while he is still in the auditor's presence.

If there are any unclaimed pay checks or envelopes, the auditor should prepare a list of them, seal the unclaimed wages in an envelope, and release the sealed envelope to the person who normally holds those items until they are claimed. Then, as the employees call for their pay the auditor should be notified so that he can release each individual's pay upon proper identification of the employee. Should this procedure be too cumbersome, or should some wages still be unclaimed after a reasonable period of time, the auditor can proceed in a different manner. His purpose should be to establish the fact that the unclaimed wages belong to a person who was a bona

fide employee of the company during the payroll period involved. This fact can usually be sufficiently proved by reference to personnel records and inquiry of appropriate company officials and other employees. To further verify the situation, the auditor, with the company's permission, may mail any remaining pay checks to the respective employees after verifying the addresses.

Verification That Costs and Expenses Have Been Properly Matched with Revenues

The principal procedures designed to assure the auditor that revenues and costs and expenses have been properly matched have already been covered in other chapters. Most important among these are the cut-off tests mentioned in connection with receivables and inventories. If sales are based entirely upon goods shipped during the year, if all goods received during the year have been recorded as purchases, and if ending inventories have been properly determined, then of necessity the result must be a proper matching of sales and cost of sales.

Another important phase of the auditor's examination of other accounts which relates to the matching process is the examination of liabilities. If accounts payable and accrued liabilities are properly stated and if no unrecorded liabilities are disclosed, the auditor has further assurance that all expenses for the year have been recorded. The examination of the various asset accounts, particularly plant assets and prepaid expenses, should enable the auditor to satisfy himself that expense items have not been improperly capitalized.

Determination That Classifications of Costs and Expenses Are Appropriate and Consistently Applied

The auditor's tests of cash disbursements, entries in the voucher register, and payrolls should largely indicate to the auditor's satisfaction whether or not costs and expenses have been properly classified. To further indicate the reasonableness of the client's classifications and to establish that the classifications have been consistently followed, the auditor should make extensive use of comparisons. Lastly, certain accounts which are most susceptible to the improper classification of charges should be analyzed or scanned for possible errors.

Comparisons. Perhaps the most important comparisons which the auditor should make are between the various costs and expenses for the current year and those for the preceding year. It is largely for this reason that final figures for the preceding year are included in the

auditor's working trial balance. Figures should be compared in terms of absolute amounts, unit costs, and percentage relationships to sales whenever possible. Note that schedule P/L in Chapter 5, the top trial balance of the income statement accounts, is set up to permit two of these types of comparisons. Any substantial variations disclosed by such comparisons should be investigated and the explanations noted in the auditor's working papers. Since variations may be the clue to classification errors or changes in classifications, it is important that the auditor's investigations be thorough and that explanations not be accepted merely because they sound logical.

Comparisons should also be made of the monthly amounts charged to some of the more active expense accounts, such as cost of sales and payroll accounts. Such a comparison is illustrated by schedule 20-1, which summarizes the monthly factory payroll distribution entries. Again, it is important that variations be investigated and explanations noted in the working papers.

When clients operate under a standard cost system, the system automatically compares material, labor, and overhead costs with standard amounts and reports the variations as separate figures. Schedule 20 illustrates the manner in which such variances are treated in the operating accounts and shows how the major classes of variances can be subdivided to give management additional information. As with other variances, the auditor should investigate any amounts which appear out of line.

If clients prepare budgets, the auditor should avail himself of the opportunity to compare actual and budgeted expenses. Such a comparison gives further evidence of the validity and consistency of the client's classification of expenses. Management officials should be thoroughly familiar with the causes for any budget variances, and the auditor should, therefore, discuss the variances with such officials. The auditor's general knowledge of the client's operations for the year should enable the auditor to ascertain whether the stated explanations of the budget variances are reasonable. The additional comprehension of operating figures which management gains through comparisons with budgeted amounts is a vital element of effective internal control. The auditor's examination of expenses and his investigation of variations in those expenses may be reduced accordingly.

The various explanations which the auditor makes in his working papers concerning variations which he has noted may often be valuable apart from their significance to the verification of reported expenses. If the auditor prepares a long-form report, the explanations will provide the necessary information for the auditor's analysis of

the results of operations. The analysis of operating results is usually one of the most important sections of a long-form report.

Classification errors affecting factory expenses. In reviewing the various expense accounts and in comparing totals for the current and preceding years, the auditor should note that the accounts have been properly classified as either factory overhead, selling expenses, or general and administrative expenses. There need be only limited consideration of whether an account is more properly classified as selling expense or general and administrative expense, since the choice will not affect net income. The question of classification is more important, however, if it involves a choice between factory overhead and either of the other two operating expense classifications. The reason is that factory overhead expenses are partly deferred in the inventory accounts, whereas selling and general and administrative expenses are charged against income in their entirety as they are incurred. Thus any error or change in classification which would affect the factory expense total would also affect the amount of net income. As a consequence, the error would be more material than an error or change which had an offsetting effect on totals within the income statement.

Account Analyses. The second major procedure by which the auditor may satisfy himself that expenses have been properly classified involves the analysis or scanning of selected expense accounts. The accounts chosen should be those likely to be charged with items which are unusual or which occur only infrequently. Such items are, of course, more susceptible to classification errors. Typical examples of accounts which usually warrant the auditor's special attention would include miscellaneous expense, corporate expense, entertainment expense, royalty expense, charitable contributions, and legal and other professional fees. Other accounts which would tend to fall in the same category, but which are usually verified in connection with the examination of related balance sheet accounts, would include repairs and maintenance, interest expense, and losses on sales of securities or plant assets.

As illustrated by schedules 30-2 and 30-3, major charges noted in analyzing or scanning the various accounts should be described, and the auditor's verification of the amounts should be noted. Typical verification procedures would include reference to authorization for the expenditures and examination of invoices or paid checks.

Manufacturing concerns are likely to find that factory overhead expenses have been underapplied or overapplied to production, and if such a situation exists, the auditor should give it very close attention, especially if the amount is material. The occurrence of such

a situation indicates that the overhead rate used during the year was not in line with the actual operating results. There may be some instances in which the auditor would feel justified in allowing the amount of underapplied or overapplied factory expense to be treated as a profit and loss item, but more frequently he will find that such a treatment would actually distort net income. In such cases the auditor should request the client to adjust the amount of overhead applied to agree with the actual experience for the year. As illustrated by adjusting journal entry number 2, which is shown at the conclusion of Chapter 5, the adjustment will affect both inventory and cost of sales and will thus change the amount of net income for the year.

Determination That All Losses Have Been Recorded

Losses should ordinarily be disclosed by the examination of balance sheet accounts, particularly if the losses relate to assets. The auditor's verification of asset valuations should readily reveal any losses carried in the asset accounts. Losses resulting in additional liability are more difficult to detect if they have not already been recorded. Procedures relating to the search for unrecorded liabilities are the principal means of disclosing such losses, but the representation letter from the client concerning the recording of all liabilities is also important.

In addition to the careful application of balance sheet procedures designed to reveal losses which have occurred, the auditor should make a general review of the client's operations for any conditions which might involve losses. For instance, substantial purchase commitments existing during a period of falling prices might entail substantial losses which should be recognized. Substantial sales contracts at firm prices in a period of rising prices might similarly result in serious losses. Losses might also occur if a construction contractor has underestimated a job and final costs are likely to exceed the contract price.

Determination That Operating Expenses and Nonoperating, Nonrecurring Losses and Expenses Have Been Segregated

The segregation of operating expenses and losses of a nonoperating, nonrecurring nature is primarily a question of statement presentation. There is a possibility, however, that such items might have been buried in the operating expense accounts, and the auditor should be alert for that possibility as he makes his comparisons and analyses of the various expense accounts.

Timing of the Examination of Income Statement Accounts

The review of the client's system of internal control, which is one of the major aspects of the auditor's examination of the operating accounts, can readily be performed on a preliminary basis several months before the close of the year. At the year end the auditor should, however, make sufficient inquiries to satisfy himself that no material changes have been made in the system of internal control since the time of his preliminary examination. If changes have occurred, the new system should be reviewed and tested in the usual fashion. Weaknesses in the system would lessen the reliability of the accounting figures and necessitate an expansion in the scope of the auditor's examination.

Year-to-year and month-to-month comparisons can also be made at a preliminary date, but the transactions for the remainder of the year would require the same thorough review. Consequently, the reduction in year-end audit time would be relatively slight, and the total audit time would be increased, with the result that this work is usually postponed until the close of the year.

CASE STUDIES ILLUSTRATING THE APPLICATION OF GENERALLY ACCEPTED AUDITING STANDARDS

(Summary of materials pertaining to the verification of expenses in *Case Studies in Auditing Procedure,* Nos. 1, 3, and 8, published by the American Institute of Accountants)

Case A (Steel Fabricator)

Net sales	$800,000
Cost of manufacturing	550,000
Shipping expenses	60,000
Selling expenses	25,000
Administrative expenses	80,000
Provision for income taxes	34,000
Net income	53,000
Total assets	565,000

For one month of each quarter the auditor traced all recorded purchases to vendors' invoices, noting that proper distribution of the charges was made between materials and direct expense accounts and between the two product lines. The invoices were reviewed for approvals covering receipt of materials and verification of extensions. The voucher register was then footed and the posting of the totals traced to the general ledger.

Payroll tests covered one week of each quarter. Hours recorded in the factory payroll register were traced to timecards, and rates were compared with the union contract. Federal withholding tax deductions were verified by reference to employees' exemption certificates and a table of withholding taxes. Computations were verified, and the footings of the payroll register were proved. The payroll for office employees was verified in a similar manner, except that rates were not covered by the union contract. The rates were reviewed with a responsible officer of the client.

The payroll figures for the week tested were traced to the monthly summary, which was footed by the auditor. The summary totals were traced to postings in the general ledger accounts.

In view of the fact that one employee compiled and distributed the payroll, which was paid in cash, once each year the auditor observed the distribution of the pay envelopes. No advance notice was given before the auditor made such observation. Any pay envelopes not distributed were maintained under the auditor's control, and envelopes not claimed by the completion of the examination were reviewed with a responsible officer.

The following expense accounts were analyzed:

Building repairs
Machinery repairs
Real estate taxes
Fuel, light, heat and power
Advertising
Officers' salaries
Office supplies and expense
Legal and accounting expense
Interest expense
Profit and loss
Miscellaneous income and expense

Charges to the above expense accounts in excess of fifty dollars were tested by reference to such supporting evidence as vendors' invoices and real estate tax bills. Labor charges were accepted on the basis of the payroll verification described above. All other expense accounts were scrutinized, and, if the amount for any month was abnormally high or low, an investigation was made to determine the cause of the variation.

Case B (Loading and Hauling Equipment Manufacturer)

Net sales	$4,500,000
Cost of Sales:	
Purchases	2,500,000
Labor	600,000
Manufacturing expense	1,210,000
Royalties	40,000
Inventory increase	(950,000)
Selling expenses	235,000
Administrative and general expenses	165,000
Other income	25,000
Other expense	125,000
Provision for Federal taxes on income	230,000
Net income	370,000
Total assets	3,438,000

Expense accounts were verified primarily by the use of comparisons, although certain accounts received further verification in connection with the examination of balance sheet accounts. A columnar schedule of expense accounts was prepared showing the amount of expense for each month and for the entire year. The percentage of net sales was also shown for each of these figures, and these percentages were compared with percentages for the previous year. Where significant variations were noted the account was analyzed and transactions were traced to supporting evidence to determine the reason for the variation.

Accounts not analyzed were scanned by the "in charge" accountant. Postings were tested to their source and their general appropriateness was reviewed. In addition, special attention was paid to any of the following situations which might be noted:

1. Classification errors.
2. Changes in classifications.
3. Entries from unusual sources.
4. Adjustments of a material amount.
5. Faulty explanations accompanying postings.

The work described above concerning the verification of costs and expenses required 3 per cent of the total audit time.

Payrolls were verified in connection with the examination of cash. All transactions appearing in the payroll bank account were compared with amounts shown on payroll summaries. The payroll records for the two weeks ended December 28 were selected for detailed examination. Hours shown on the payroll register were traced to timecards, and rates were compared with rate authorization cards on file in the personnel department. Withholding exemption certificates were examined in support of the exemptions shown on the payroll, and authorizations were examined for other payroll deductions. All computations and footings were verified, and totals were traced to general ledger postings.

Case C (Department Store)

Net sales	$12,000,000
Cost of goods sold, selling, operating and administrative expenses	10,800,000
Nontrading income	50,000
Provision for Federal taxes on income	500,000
Net income	750,000
Total assets	5,600,000

All expenses are classified first according to one of fourteen natural divisions, such as payrolls, rents, and advertising, and then according to the five functions of administration, occupancy, publicity, buying, and selling. The accounts used are based on *Expense Manual* published by the

Controllers' Congress of the National Retail Dry Goods Association. Comparisons between stores are facilitated by the use of this manual.

Employment is handled by an employment office. This office sends a notice, in writing, to the payroll office concerning rate of pay and subsequent changes. The payroll office maintains a file of Addressograph plates showing each employee's name, serial number, social security number, and weekly rate of pay. Employees punch timecards, and the timekeeping department summarizes the hours worked as shown by these cards and forwards the information to the payroll office. The payroll office computes earnings and deductions and posts these figures in a single operation to the employees' individual earnings records and pay envelopes. At the same time the accounting machine develops totals of the earnings and deduction figures by departments. A check is drawn for the amount of the net payroll and forwarded to the general cashier along with the pay envelopes. The cashier cashes the check, fills the pay envelopes, and hands the envelopes to the paymaster. The paymaster obtains the employees' signatures for receipt of the envelopes as he distributes them. The paymaster holds unclaimed envelopes for several weeks and then returns those still on hand to the general cashier to be incorporated with the general cash funds.

The payroll department sends the accounting department a monthly summary of payrolls. The accounting department reconciles the report with cash disbursements, checks the computation of payroll taxes, and prepares a general ledger entry covering the payrolls. The accounting department also checks the payroll tax returns prepared by the payroll department and reconciles the returns with the general ledger liability account.

The auditor tested the payroll records and internal control in the following manner. Ten timecards for a recent payroll were scanned to see that all time clock punches were shown, and the total hours were computed and compared with the total time shown on the timecard. The total hours were then traced to the payroll register, and the computation of the employees' gross pay was verified. Deductions were traced to appropriate sources. Rates of pay for fifty employees were compared with the authorizations received from the employment office. Commissions paid to ten employees were verified in a manner similar to the verification of regular earnings. The sales figures used in computing such commissions were traced to the records prepared by the sales audit department. The signatures for the receipt of pay envelopes for one payroll period were reviewed, and note was made that changes from the Addressograph listing were initialed by a department head. Any missing signatures were investigated to ascertain that the pay envelopes were not claimed by the employees, and had been handled as required.

The payrolls for five departments were footed and crossfooted. The total payroll figures as shown by the payroll department records (cash basis) were reconciled with the general ledger payroll amounts for one month.

The client prepared an analysis showing monthly purchases for the current and preceding year. The total purchases as shown by this analysis were reconciled with the statistical department records used in determining book inventories. Significant variations in purchases and workroom costs were investigated. All general ledger accounts pertaining to cost of sales were scrutinized to be sure they appeared regular. Any substantial adjustments noted were investigated to ascertain that they were not made for the purpose of concealing irregularities.

The client also prepared schedules showing, by department, for the current and preceding year, the percentage of inventory shortage at retail, the percentage of markdowns at retail, and the percentage of alteration costs. These schedules were likewise reviewed for significant variations.

Payroll accounts were scrutinized for reasonableness and for extraordinary fluctuations. Officers' salaries were traced to approvals by the board of directors, and employment contracts were examined in support of bonuses paid.

Leases were examined in support of rent paid and rent received. Other expense accounts were scrutinized for reasonableness and for variations from the preceding year. For accounts which ordinarily would not fluctuate in relation to the volume of business the comparisons were made on the basis of the dollar balances of the accounts, whereas comparisons were made on other bases for those accounts which fluctuated with the volume of business. Explanations were obtained for large unclassified or miscellaneous accounts, and in some instances the accounts were analyzed.

All postings to operating expense accounts for one month were traced to their sources.

Machine Products Co.
Cost of Sales - Standard and Actual

JAS

12/31/56 — 1/8/57

	Index	Final 12/31/55	Per Books 12/31/56	Adjustments Dr
Cost of sales at standard				
Material		2 602 548 29	2 924 155 25	
Labor	20-1	2 122 631 82	2 346 081 15	
Overhead	20-2	2 547 158 18	2 815 297 39	
Total cost at standard		7 272 338 29	8 085 533 79	
Material price variances				
Product cost		123 419 62	37 606 65	
Transportation cost		10 364 58	3 601 98	
		133 784 20	41 208 63	
Material use variances				
Defective material		6 329 40	5 935 81	
Spoiled work		15 704 15	17 062 37	
		22 033 55	22 998 18	
Labor price variances				
Off-standard pay rates		4 715 60	2 864 93	
Interim rate changes		2 318 92	1 903 39	
		7 234 52	4 768 32	
Labor use variances				
Make up pay (earned less than standard guarantee)		7 056 93	5 213 81	
Defective material		1 329 05	1 041 63	
Spoiled work		8 924 15	9 259 87	
Re-work		7 215 93	6 464 40	
Waiting for material		2 205 61	846 72	
Machine breakdown		1 563 44	1 128 45	
Excess setups		1 024 18	1 321 85	
		29 319 29	25 276 73	
Overhead variance	20-2	(15 056 43)	(257 558 10)	257 558 10
Inventory variances				
Material	C-1 / 1	35 614 72	121 046 23	
Work in process	C-2 / 1	28 215 90	21 928 15	
Finished goods	C-3 / 1	5 214 39	4 361 25	
Supplies	C-4 / 1	2 786 24	2 015 57	
		71 831 25	149 361 20	

+Reclassifications Cr	Final 12/31/56	
	2924155.26	
	2346081.15	
③ 229401.92	2585895.47	
229401.92	7856131.82	To P/L
		} Wichita supplier of castings closed by strike during part of 1954; castings at higher price shipped in from Enterprise, Kas.
	41208.63	To P/L
	22998.18	To P/L
	4768.38	To P/L
	252767.73	To P/L
	—	To P/L
① 8000000	4104623	
	21928.15	
	4361.25	
	2015.57	
8000000	6935120	To P/L

20-1

Machine Products Co

Summary of Factory Payroll Distribution Entries

12/31/56

WSM
1/10/57

Account charged	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	Total to Schedule
Direct Labor Work in Process	204107.19	202261.18	212391.87	210916.47	203624.13	179861.25	170926.58	169391.87	177321.52	213437.15	212476.49	208763.51	2364420.72	*
Off std. pay rates	228.77	206.91	231.87	252.80	219.87	193.30	204.87	190.28	241.15	263.89	304.15	326.97	2864.93	20
Interim rate changes	15.01	45.31	55.10	84.19	100.36	109.62	123.38	157.80	209.15	260.21	311.46	436.80	1903.39	20
Make up pay	406.93	426.15	501.96	453.87	421.19	432.68	413.64	430.87	406.51	415.91	424.83	477.47	5213.81	20
Defective material	119.44	94.86	90.05	85.52	94.16	80.23	86.24	81.72	88.45	91.40	60.21	70.45	1041.63	20
Spoiled work	753.91	815.29	761.43	814.91	728.19	696.18	715.29	742.63	796.80	741.86	846.22	847.36	9259.87	20
Re work	523.18	551.92	596.81	572.73	506.39	526.93	502.97	515.37	564.13	581.14	520.25	501.93	6464.40	20
Waiting for material	73.19	69.00	75.98	60.04	69.28	68.20	69.17	65.94	75.82	80.96	74.53	69.41	846.72	20
Machine break down	121.62	93.61	92.25	86.04	95.19	82.36	84.19	85.90	91.03	92.16	97.62	106.48	1128.45	20
Excess set ups	93.62	110.05	98.64	102.73	92.80	86.63	89.92	106.21	144.36	136.90	123.39	136.40	1321.85	20
Supervision	39.624.81	39.321.18	40.143.84	39.604.52	37.263.91	31.609.82	32368.41	30.632.89	37.246.89	39.867.51	39.920.05	38.620.97	406.209.80	20 2
Indirect Labor	75.368.14	74 863.37	74 961.39	75.214.87	73386.41	61 863.91	60.469.62	61.215.37	73.816.91	76.243.76	76.009.70	74.511.22	857.819.67	20 2
Repairs	1792.44	1824.73	1 629.87	1 734.39	1 741.98	1 428.97	1 506.71	1 397.64	1 681.92	1 804.51	1 872.13	1 752.31	20.187.60	U-2
Maintenance	872.41	916.78	868.35	901.63	915.74	856.39	862.14	941.90 ②	2.243.61	923.18	904.61	946.84	12.173.58	U-2
Overtime premiums	3.731.86 ①	3.862.41 ①	2.586.15 ①	4.321.86	763.91	321.65	1.604.98	338.48	1.063.91	261.87	360.87	352.25	15.760.20	20-2
Shift premiums	3.886.81	3.923.19	4.061.29	3.761.18	3 694.87	3.124.87	3.069.75	3.246.89	3.774.89	3.990.42	3.909.75	3.921.30	44.360.21	20-2
Vacation & holiday pay	14.206.51	851.29	1.231.52	2.641.90	10.268.91	32.604.91	41.928.80	43.921.80	35.293.46	5.219.61	1.246.18	15.216.34	204.631.28	20 2
Total for month	346035.84	350237.43	340336.17	337729.65	333987.29	313.842.80	315.030.66	313.463.06	335055.91	344.409.29	339.402.15	347.057.86	3.996608.11	

① Working on such order, completed 3/27/56

② Additional expenses in connection with equipment building for occupancy and moving in equipment See U-2

Except as noted, all variations in above figures appear reasonable and in line with normal seasonal variations. See 20-1 for test of payroll records

* Tie-in of direct labor with cost of sales:

Direct labor in std. cost of sales, per 20	2346081.15
Add increase in labor in W.I.P., per C	43654.90
Deduct decrease in labor in F.G., per C	(24315.33)
Direct labor, as above	2365420.72

Machine Products Co. 1 of 2
Test of Factory Payroll

W.S.M
1/11/57

12/31/56

Client's system

Productive workers are paid on a piecework basis. Workers report their own production, but these reports are reviewed and approved by supervisors and they are subsequently posted to production records to show that pieces paid for agree with the number ordered on each production order. Special allowances are authorized by special day work tickets which are prepared by the supervisors. Supervisors also prepare day work tickets showing to what accounts indirect labor is to be charged. All workers punch clock cards at a time clock located at the plant entrance. Checks and payroll records are prepared in the payroll section of the accounting department. The treasurer signs all checks and then releases them to the office manager, who serves as paymaster.

Payroll test

The factory payroll for the week ended November 10, 1956, was selected for our test of factory payroll. About 800 workers are on the payroll; we selected 20 production workers and 10 nonproduction workers and supervisory employees for our test. For productive workers, piecework reports were reviewed for supervisors' approvals, rates were traced to the standard cost books, and extensions and footings were verified to prove total piecework earnings. These figures were then traced to the payroll register. Any allowances or day work time were traced to day work tickets. Total time for the week was then compared with the hours shown by the worker's clock card. Day work rates were compared with rate authorizations on file in the payroll section, and the totals for allowances and day work were computed and traced to the payroll register. Indirect labor and supervisory labor were verified in a similar manner, with hours shown by the day work tickets being compared with the clock cards.

W.S.M
1/11/57

Machine Products Co.
Test of Factory Payroll
12/31/56

Withholding tax deductions were verified by reference to the employees' W-4 exemption certificates and to a table of withholding tax figures. Deductions for social security tax were verified by applying the 2½% rate to gross earnings. If no tax was shown the worker's earnings summary record was consulted to verify that the worker had earned in excess of the taxable limit. Other deductions were traced to authorizations on file in the payroll section.

The payroll register was footed and cross-footed and the totals were traced to the payroll summary for the month. The summary was then footed and traced to general ledger postings.

Only one exception was noted in the above tests. The piecework and day work tickets for #2863, John Woyakowski, were not on file. Inquiry revealed that the tickets were removed when Woyakowski challenged the amount of pay he received, and the tickets were apparently subsequently misfiled. Both the supervisor and the union steward confirmed the facts concerning the disagreement, which involved the matter of the rate Woyakowski was to be paid on a special job, and the additional pay was traced to the payroll register for the following week.

Observation of Payoff

We observed the distribution of pay checks to workers in the milling and assembly departments on January 10, 1957. Our observation was unannounced and we compared the checks with the payroll register before proceeding. The following checks were unclaimed and held under our control until subsequently delivered:

Name	Why absent	Check delivered
#1537 J. Powers	Sick	1/12/57
#1829 R. Swenson	Vacation	1/18/57

Machine Products Co.
Factory Overhead

J.A.S.

12/31/56 — 1/8/57

	Index	Final 12/31/55	Per Books 12/31/56	Adjustments + Reclass Dr	Adjustments + Reclass Cr
Officer's salary	30-1	50,000 00	55000 00		
Supervision	20-1	438,162 49	446,209 80		
Indirect Labor	20-1	837,624 31	857,819 67		
Overtime prem.	20-1	17,823 90	15,760 20		
Shift premiums	20-1	42,619 37	44,360 21		
Supplies	Ⓓ	225,382 15	230,257 36		
Power	Ⓓ	230,401 38	236,951 18		
Fuel	Ⓓ	54,185 35	52,456 73		
Water	Ⓓ	14,329 87	16,260 89		
Depreciation –					
Building	V-1	12,921 40	13,333 21		
Mchy + Equip.	V-1	55,019 31	58,115 42		
Insurance	L-1	48,234 15	48,016 33	⑥ 2,949 98	
Property taxes	L-2	36,501 24	37,336 61		
Payroll taxes	CC-2	139,241 76	143,529 91		
Repairs	U-2	52,901 41	30,068 30		
Maintenance	U-2	14,302 15	16,254 07		
Telephone + Tel.		8,734 51	8,461 86		
Vacation + holiday pay	20-1	176,390 47	204,631 28		
Misc factory exp.	Ⓓ	68,414 50	66,073 73		
Total overhead		2,523,189 72	2,580,946 76	2,949 98	
Overhead applied		2,538,246 15	2,838,504 86	② 254,608 12	
Overhead variance		15,056 43	257,558 10	257,558 10	

to 20

Disposition of Overhead Applied –

Cost of sales (rtd.)	20	2,815,297 39		② 229,401 92
Incr. in O.H. in W.I.P.	C	52,385 87		② 21,132 47
Decr. in O.H. in F.I.	C	(29,178 40)		② 4,073 73
		2,838,504 86		254,608 12

Final
12/31/56

55 000 00	Author's note –
446 209 80	① These accounts would be reviewed
857 819 67	by the auditor and any unusual
15 760 20	entries or month-to-month
44 360 21	variations would be investigated.
230 257 36	Some of the accounts might be
236 951 18	analyzed, but the analyses
52 456 73	would be similar to other
16 260 89	expense analyses illustrated
	in this section.
13 333 21	
58 115 42	
50 966 31	
37 336 61	
143 579 91	
30 068 30	Additional expense in 1955 resulted from
16 254 07	re-laying all block floors in the factory.
8 461 86	
204 631 28	
66 073 73	
2 583 896 74	
2 583 896 74	
–	
to 20	
2 585 895 47	
31 253 40	
(33 252 13)	
2 583 896 74	

Machine Products Co.

Selling and General administrative Expenses

J.A.S.

12/31/56

1/8/57

	Index	Final 12/31/55	Per Books 12/31/56	Adjustments Dr
Selling expenses				
Officer's salary	30-1	40,000.00	43,000.00	
Office salaries	①	151,431.65	156,307.82	
Shipping expense	②	40,926.87	42,353.71	
Depreciation - building	V-1	444.44	444.44	
- equipment	V-1	523.42	590.92	
Property taxes	L-2	305.50	330.47	
Insurance	L-1	815.29	863.15	
Payroll taxes	CC-2	6,019.76	6,290.88	
Advertising	②	115,763.82	101,874.29	
Miscellaneous	②	8,529.63	8,091.19	
Total selling expenses		364,755.38	360,146.87	
			to P/L	
General and Admin. Expense				
Officers' salaries	30-1	206,500.00	223,000.00	
Office salaries	①	182,793.47	196,328.51	
Directors' fees and expenses		4,156.38	3,645.80	
Legal and professional fees	30-2	18,768.41	15,462.80	
Provision for doubtful accounts	B-2	5,243.82	5,725.37	
Postage		12,367.82	13,862.40	
Depreciation - building	V-1	1,037.03	1,037.03	
- equipment	V-1	1,163.15	1,378.81	
Insurance	L-1	5,238.91	5,518.50	
Property taxes	L-2	751.82	774.96	
Payroll taxes	CC-2	8,623.42	9,441.37	
Stationery and supplies	②	15,389.64	17,651.82	
Subscriptions		2,819.50	2,651.00	
Telephone and telegraph		5,931.45	5,820.97	
Travel and entertainment	②	20,247.68	23,651.41	
Donations	30-3	3,220.00	3,475.00	
Miscellaneous	②	10,776.08	11,880.07	
Total Gen. + Admin. expenses		505,028.58	541,305.82	
			to P/L	

* Company eliminated advertising in Factory Management and Maintenance during 1956.

	*Reclassifications Cr		Final 12/31/56
			43,000.00
			156,307.82
			42,353.71
⑤	137.32		307.12
			590.92
			330.47
			863.15
			6,290.88
			101,874.29 *
			8,091.19
	137.32		360,009.55
			22,300.00
			196,328.51
			3,645.80
			15,462.80
			5,725.37
			13,862.40
⑤	320.43		716.60
			1,328.81
⑥	285.00		5,233.50
			774.96
			9,441.37
			17,651.82
			2,651.00
			582.97
			23,651.41
			3,475.00
			11,880.07
	605.43		540,700.39

① Monthly payroll totals were reviewed and showed no unusual month-to-month variations. The March payroll was selected for testing as follows: for 20 employees, attendance reports and rate authorizations were examined, gross earnings and deductions were verified, and the payroll was footed and cross-footed and the totals traced to the general ledger.

② Author's note - These accounts would be reviewed by the auditor and any unusual entries or month-to-month variations would be investigated. Some of the accounts might be analyzed in whole or in part, and invoices examined in support of major items. Other schedules in this section illustrate these techniques.

Machine Products Co.
Officers' Salaries

J.A.S.
1/10/57

12/31/56

	Salary 1955	1956
R. H. French, President	55000 00	60000 00 u
L. E. Woolley, V. P. Purch.	42 00 00	45000 00 u
H. A. Osegard, Treas.	45 00 00	48000 00 u
R. A. Elmore, Controller	42 00 00	45000 00 u
A. R. Paxson, Secretary	22500 00	25000 00 u
Total charged to Gen. & Admin.	206500 00	223000 00
		To 30
D. V. Purcel, V. P. Sales (charged to Selling Exp.)	40000 00	43000 00 u. To 30
H. S. Groom, V. P. Production (charged to Factory Overhead)	50000 00	55000 00 u To 20-2

u Salary approved by board of directors, meeting 1/10/56 - see X X

Machine Products Co.
Legal and Professional Fees

J.A.S.
1/12/57

12/31/56

1/15/56	Tanner, Hyde, and Thrasher - retainer fee	3 000 00 n
3/10/56	Black and Decker, CPA's - audit fee, 1955	3 462 80 n
4/15/56	Tanner, Hyde, and Thrasher - retainer fee	3 000 00 n
7/14/56	do	3 000 00 n
10/16	do	3 000 00 n
		15 462 80 n
		to 30

n - Invoice examined

Machine Products Co.
Donations

J.A.S.
1/11/57

12/31/56

Donations approved by board of directors - all XX

12/5/56	Community Chest	2 000 00 n
10/30/56	American Red Cross	500 00 n
11/21/56	Cancer Fund	500 00 n
Other donations, less than $250 each		475 00
Total donations		3 475 00
		to 3p

n Paid check examined

Machine Products Co.

Other Income and Other Expense

J.A.S.

	Index	12/31/56 Final 12/31/55	Per Books 12/31/56	Adjustments & Reclassifications Dr	Adjustments & Reclassifications Cr	1/8/57 Final 12/31/56
Other income						
Interest on investments	N	3116.49	32231			32231
			to P/L			
Other expense						
Loss on sale of investments	N	—	67313			
Interest expense	AA	25000.00	1583333			
Loss on plant retirements	U-3	3861.40	7165			
Total other expense		2886140	165781 1			165781 1
			To P/L			

Review Questions

1. Why are budgets considered a form of internal control?

2. Manufacturing costs should be accounted for on two separate bases to assure adequate internal control. Explain.

3. What are the principal payroll functions which should be separately handled to obtain maximum internal check over payroll preparation and payment?

4. Explain the manner in which employees' reported hours worked or pieces completed can be double checked.

5. Why should employees be permitted to punch only their own time cards?

6. What records are prepared by the payroll department?

7. Contrast the procedures which would be followed under strong and weak internal control by the official who signs the check for the transfer of funds to the payroll account.

8. What tests should the internal auditor make of recorded payroll data?

9. What investigation should the internal auditor make of the various reports of expenses which are used by management?

10. List the standards for the presentation of costs and expenses in the income statement.

11. What are the auditor's objectives in the verification of the amount of costs and expenses reported in the income statement?

12. What procedures might the auditor follow in testing the records relating to the cost of merchandise markdowns in a retail store?

13. How should wage rates be verified in connection with a test of factory payroll?

14. Explain in detail how the various tax deductions from workers' pay should be verified.

15. What should the auditor do about unclaimed pay checks at the completion of his observation of a payoff?

16. What balance sheet verification procedures help to assure the auditor that revenues and expenses have been properly matched?

17. What procedures enable the auditor to determine whether costs and expenses have been appropriately classified on a consistent basis?

18. Of what value are the comments placed by the auditor in his working papers to explain variations in expenses which he has noted in his comparison studies of expenses?

Questions on Application of Auditing Standards

19. Would you consider examination of cancelled checks to be adequate verification that taxes had been fully paid? Justify your answer and state what additional procedures you would use if you consider the cancelled checks to be insufficient.

20. What records and supporting data would be used in making a complete examination of payroll for one week?

21. What audit procedures would disclose that the payroll was padded by retaining on the payroll employees who had resigned?

22. Suggest several instances in which the results of confirmation procedures with respect to balance sheet accounts might affect figures on the income statement.

23. In what way do budgets, ratios, and operating statistics aid the auditor in his examination of expenses?

24. Explain the value of the following procedure: "Prepare a schedule summarizing the monthly payroll distribution entries."

25. How would you verify the balance in the account "Unapplied factory overhead" at the end of the year?

26. How would you verify the balance of the material price variance account for a client who records all purchases at standard cost?

27. What information might be revealed in the course of an examination of the purchases account which might require adjustment by the auditor?

28. Should the following amounts be shown separately on a published income statement, or may they be combined with other accounts to increase readability of the audited statement? Give reasons for your answers.

(*a*) Bad debt expense.
(*b*) Depreciation expense.
(*c*) Interest expense.

29. An analysis of the accumulated depreciation account reveals a charge covering the cost of tuck pointing a building. What assumption is indicated by the treatment of the charge? Do you agree with the treatment used? Explain.

30. How will the organization of the working papers for expenses be affected if the income statement is to be of the single-step variety?

31. Your client razed one of its factory buildings to make space for more modern facilities. Since you have previously indicated your willingness to assist the client with interim accounting problems, the client asks you to prepare the journal entry to record the disposition of the old building. The client wishes to follow the recommendations of the Committee on Accounting Procedure of the American Institute of Accountants.

The building cost $100,000; the present book value, after accruing depreciation to the date the building ceased to be used, was $24,000. The loss is deemed to be material in relation to the company's net income. Income tax rates average about 55 per cent.

32. Your client was granted a certificate permitting the client to charge off 75 per cent of the cost of certain emergency facilities over a five-year period for tax purposes. Would you recommend that the accelerated depreciation be used for book purposes also? Explain.

33. Explain the following statement: "With today's substantially increased replacement cost of plant and equipment, the requirement that depreciation for income tax purposes be based on historical cost changes the income tax partly into a confiscatory tax on capital."

34. How would you satisfy yourself with respect to the balance of the account "Sales returns and allowances"?

35. Why should the auditor compare unit production costs for the year with the costs for previous years?

36. Through discussion with your client's purchasing manager, you learn that the previous supplier of the electric motors used in the washing machines which it manufactures and sells has been forced to suspend deliveries as a result of a strike by its employees. For the past three months all motors used have been obtained from a small, little-known manufacturer of electric motors. The motors are not believed to be as good as the ones regularly used, and the company is eager to obtain motors from the regular supplier as soon as they are available. What bearing should the above information have on your examination?

37. Explain why the paymaster should not be permitted to hold unclaimed wages until the employee calls for them, but rather, should list the unclaimed wages and turn them over to someone else for distribution to the employees.

38. Discuss the advantages from an internal control standpoint of having all terminated employees report to the personnel department before receiving their final pay.

Problems

39. You are the senior in charge of the annual audit of ABC Manufacturing Corporation for the year ending December 31. You are informed by the partner supervising the engagement that the estimated time required for the audit for you and one assistant is two weeks for "preliminary work" in November and three weeks for "final work" after the books are closed for the year.

You find that the client's internal control over hourly payrolls is not perfect in that the size of the organization does not permit complete diversification of duties, yet there are no outstanding weaknesses. The 300 hourly employees are paid bi-weekly by check. Wage rates are set forth in a union contract, a copy of which is furnished to you.

(*a*) Prepare an audit program for the examination of hourly payrolls to be performed during "preliminary work."

(*b*) State what, if any, additional auditing procedures would be required in connection with hourly payrolls during the "final work" on the audit.

(A.I.A.)

40. In connection with the annual examination of financial statements of the Super Power TV Co. as of December 31, you are assigned to the verification of the accounts related to production costs, cost of sales, and finished goods inventory. The company assembles TV chassis from parts which it purchases from various suppliers. There is no sub-assembly work, and all chassis assemblies started each day are finished the same day. Since there is no work in process inventory, production costs are charged directly to Finished Goods Inventory, and the cost of chassis sold during each month is credited to this account.

Production is scheduled in lots of 500, and memorandum records are kept on the costs of each lot. All entries for production costs and cost of sales (which are figured on a Fifo basis) are made to Finished Goods Inventory by means of monthly standard journal vouchers. The numbers of these journal vouchers are as follows:

J 1	Parts and materials used
J 4	Payroll distribution (direct labor)
J 5	Overhead applied to production
J 8	Cost of sales

By questioning various company officials and analyzing available records, you are able to acquire the following information concerning the current year's operations:

1. At considerable cost to the company, a new automated assembly line was installed during July. The new line reduced the amount of direct labor required, and reduced material costs also, through the use of printed circuits.

2. The new line was installed during the first two weeks of July, when the plant and shipping room were shut down for vacation. (Vacations were taken on a staggered basis last year, and the plant was not shut down.)

3. Over-all cost reductions resulting from the new line were passed on to customers through reduced selling prices, resulting in a definite improvement in sales.

4. Overhead was applied to production during the first half of the year at the same rate of 123 per cent of direct labor cost which was used last year. The rate was refigured to give effect to the decreased labor costs and increased overhead resulting from the new automated production set-up, and 140 per cent was used for the remainder of the year.

5. During the year, 11,927 chassis were produced and 12,062 were recorded as sales.

Your working papers for other phases of your examination reveal the following information:

1. The individual items of overhead expense were in line with last year except for increased depreciation and certain indirect labor costs associated with the installation of the new assembly line. Actual overhead expenses, as shown by your analysis and the general ledger control account, were $493,523.41.

2. Your observation of the physical inventory taken at December 31 revealed 255 completed chassis on hand in the finished goods storage area, and 158 chassis in the shipping room, packed and ready for shipment. The last production order completed for 500 units showed average costs of $96.17 per unit, based on the new 140 per cent overhead rate. This figure is to be used in pricing the inventory of completed sets, subject to any adjustments you might recommend.

3. Your verification of the cut-off of sales and cost of sales showed that the 158 chassis packed for shipment were included in sales and cost of sales for the year. The billing price of these chassis to customers was $155.00 each.

Your working papers for last year reveal the following information:

	No. of Chassis	*Average per unit*	*Total Dollars*
Inventory January 1	364	$ 97.52	$ 35,497.28
Charges for production			
Material		22.47	237,521.72
Labor	10,571	33.93	358,689.76
Overhead (123% of labor)		41.74	441,188.40
	10,935	98.12	$1,072,897.16
Credits for Cost of Sales	10,518	97.94	1,030,183.12
	417		$ 42,714.04
Adjustments for Inventory Shortage	12		2,999.74
Inventory December 31	405	98.06*	$ 39,714.30
Adjustment for unapplied overhead			1,125.72
Inventory December 31, per balance sheet	405	100.84	$ 40,840.02

*Average cost, last lot of 500 chassis completed.

Adjustment for Unapplied Overhead

Actual overhead expense	$ 470,812.58	
Overhead applied at 123% rate	441,188.40	
Unapplied overhead	$ 29,624.18	
		% of Total
Total cost of sales	$1,030,183.12	
Less beginning inventory	35,497.28	
Current production in cost of sales	$ 994,685.84	96.2
Ending inventory	39,714.30	3.8
Total current production costs accounted for	$1,034,400.14	100.0
Distribution of unapplied overhead to—		
Cost of sales	$ 28,498.46	96.2
Inventory	1,125.72	3.8
	$ 29,624.18	100.0

Cost of sales, last year, by months—

Jan.	$ 96,952.30
Feb.	95,920.56
Mar.	99,047.54
Apr.	93,857.07
May	82,507.87
June	64,999.95
July	61,968.20
Aug.	71,158.67
Sept.	82,476.13
Oct.	89,761.83
Nov.	94,920.54
Dec.	96,612.46
	$1,030,183.12
Adjustment for underabsorbed overhead	28,498.46
Final cost of sales, last year	$1,058,681.58

The Finished Goods Inventory account for the current year is given below.

Finished Goods Inventory

Date	*Description*	*Ref.*	*Debit*	*Credit*	*Balance*
Jan. 1					$40,840.02
31		J1-1	$22,156.39		
		J4-1	33,926.47		
		J5-1	41,729.56		
		J8-1		$ 95,001.52	43,650.92
Feb. 28		J1-2	21,516.96		
		J4-2	33,076.81		
		J5-2	40,684.48		
		J8-2		96,160.07	42,769.10
Mar. 31		J1-3	22,095.48		
		J4-3	33,729.63		
		J5-3	41,487.44		
		J8-3		104,269.96	35,811.69

Date	*Description*	*Ref.*	*Debit*	*Credit*	*Balance*
Apr. 30		J1-4	21,716.98		
		J4-4	33,229.86		
		J5-4	40,872.73		
		J8-4		106,587.07	25,044.19
May 31		J4-5	34,761.14		
		J1-5	22,823.41		
		J5-5	42,756.20		
		J8-5		97,318.63	28,066.31
June 30		J1-6	21,783.17		
		J8-6		77,623.19	
		J4-6	33,288.48		
		J5-6	40,944.83		46,459.60
July 31		J1-7	10,274.33		
		J4-7	15,325.71		
		J5-7	21,455.99		
		J8-7		42,866.54	50,649.09
Aug. 31		J1-8	20,614.82		
		J4-8	30,486.90		
		J5-8	42,681.66		
		J8-8		86,891.63	57,540.84
Sept. 30		J1-9	22,234.65		
		J4-9	32,204.88		
		J5-9	45,086.83		
		J8-9		99,635.74	57,431.46
Oct. 31		J1-10	23,427.28		
		J4-10	33,718.92		
		J5-10	47,206.49		
		J8-10		107,745.62	54,038.53
Nov. 30		J1-11	24,118.49		
		J4-11	34,684.57		
		J5-11	48,558.40		
		J8-11		117,696.95	43,703.04
Dec. 31		J1-12	25,515.37		
		J4-12	36,583.76		
		J5-12	51,217.26		
		J8-12		129,758.18	27,261.25

From the information given, prepare your working papers covering production costs and cost of sales for the current year, and prepare any adjusting or reclassification entries that are necessary.

41. Prepare a work sheet covering your examination of the account "Miscellaneous Administrative Expense," in connection with your year-end examination of Pratt Products Co. The general ledger account appears as follows:

Miscellaneous Administrative Expense

Date	*Description*	*Reference*	*Dr.*	*Cr.*	*Balance*
Jan. 31		VR	$1,000.00		$1,000.00
		J-3	7.86		1,007.86
Feb. 28		VR	20.00		1,027.86
		J-8	8.15		1,036.01
Mar. 31		VR	2,015.00		3,051.01
		J-15	7.29		3,058.30
Apr. 30		VR	1,636.28		4,694.58
		J-23	9.05		4,703.63

Date	*Description*	*Reference*	*Dr.*	*Cr.*	*Balance*
May 31		VR	250.00		4,953.63
		J-29	7.36		4,960.99
June 30		VR		$17.64	4,943.35
July 31		VR	1,020.00		5,963.35
		J-32	8.17		5,971.52
Aug. 31		VR	15.00		5,986.52
		J-36	7.63		5,994.15
Sept. 30		VR	20.00		6,014.15
		J-40	7.02		6,021.17
Oct. 31		VR	2,481.39		8,502.56
		J-43	7.82		8,510.38
Nov. 30		VR	313.81		8,824.19
		J-47	8.20		8,832.39
Dec. 31		VR	569.95		9,402.34
		J-50	8.92		9,411.26

Reference to journal voucher J-23 reveals that the amount of $9.05 represents bank service charges for the month of March. Other journal entries are presumed also to be for bank charges. Your year-end bank reconciliation shows that service charges for December were $9.45.

The voucher register contains a miscellaneous column which is analyzed at the end of the month and recapped to show the charges to the various accounts that are affected. Analysis of the individual entries reveals the following breakdown of the monthly charges to Miscellaneous Administrative Expense:

January	
Barton and Barrister	$1,000.00
February	
R. B. Holden, Cashier	$ 20.00
March	
American Red Cross	$ 100.00
Bright & Early	1,900.00
R. B. Holden, Cashier	15.00
	$2,015.00
April	
R. B. Holden, Cashier	$ 110.00
Barton and Barrister	1,000.00
Proxy, Inc.	476.28
Damon Runyon Cancer Fund	50.00
	$1,636.28
May	
R. B. Holden, Cashier	$ 250.00
June	
R. B. Holden, Cashier	$ 17.64 Cr.
July	
R. B. Holden, Cashier	$ 20.00
Barton and Barrister	1,000.00
	$1,020.00
August	
R. B. Holden, Cashier	$ 15.00

September	
R. B. Holden, Cashier	$ 20.00
October	
Barton and Barrister	$2,456.39
R. B. Holden, Cashier	25.00
	$2,481.39
November	
United Fund Drive	$ 250.00
R. B. Holden, Cashier	63.81
	$ 313.81
December	
R. B. Holden, Cashier	$ 20.00
Bonn's Department Store	234.95
R. B. Holden, Cashier	315.00
	$ 569.95

The following information is obtained by examination of supporting records and discussion with various company officials.

The custodian of the office petty cash fund, R. B. Holden, submits a voucher the first of every month claiming reimbursement for disbursements made during the preceding month. The voucher for December disbursements is always made before the end of the month, however, in order to reflect December transactions in the proper year.

All postage used in the general office is purchased with petty cash funds, and represents the only petty cash disbursement affecting Miscellaneous Administrative Expense, except as follows:

(*a*) The voucher for disbursements made in April included an advance of $225 to P. D. Holcomb, President, to cover expenses of a trip to visit the company's East Coast warehouse. The actual expenses were $187.36, and the balance of the advance was returned to Holden the following month.

(*b*) Several office employees worked overtime during October to prepare a special report, and were reimbursed from the petty cash fund for the cost of their suppers and cab fares to their homes, in the total amount of $43.81.

(*c*) P. D. Holcomb received an advance of $300 in December for expenses relating to a trip to attend a trade association meeting to be held from January 3 to January 6.

Minutes of the Board of Directors contain the following actions:

Meeting Date	*Action*
11/14	Re-appointed the firm of Bright & Early to make the annual examination of the company's financial statements.
12/15	Authorized retaining Barton and Barrister for legal services for another year, retainer fee of $4,000 to be paid quarterly, in advance, beginning in January.
1/15	Authorized contribution to American Red Cross, $100.00.

Meeting Date	*Action*
3/15	Authorized mailing to stockholders of annual report for previous year, together with notice of annual stockholders meeting and proxy form for stockholders unable to attend the meeting. Authorized engagement of Proxy, Inc., to solicit return of stockholders proxies, for fee of $300 plus out-of-pocket expenses.
4/15	Authorized contribution to Damon Runyon Cancer Fund, $50.
11/15	Authorized contribution to United Fund Drive, $250.

The statement from Bonn's Department Store contains the description "Purchases by A. C. Powers." On questioning Mr. Powers, the office manager, you learn that this is a bill covering the purchase of Christmas gifts for office employees.

The statement from Barton and Barrister attached to the voucher entered in October reads as follows:

Retainer Fee	$1,000.00
Legal and out-of-pocket expenses relating to defense of patent infringement suit.	1,456.39
	$2,456.39

Your working papers should explain all unusual items, and should show any adjustments or reclassifications you would recommend. Show all possible adjustments, regardless of materiality. In addition, prepare a list of points concerning items about which you would want further information, or which you would want to bring to the attention of the senior accountant.

16 · Other Audit Considerations

The preceding chapters have covered the essential aspects of the auditor's examination of a client's balance sheet and income statement for the purpose of expressing an informed opinion as to the acceptability of those statements. In this chapter certain miscellaneous audit procedures necessary to complete the audit are covered, and a general over-all review is given of the auditor's objectives and his approach to the audit engagement. The final portions of the chapter deal with certain internal and professional considerations relating to the audit engagement and conclude with a summary of the various other services the auditor should be prepared to perform for his client.

COMPLETING THE AUDIT

Verification of Postings to General Ledger Accounts

The financial statements covered by the auditor's opinion are based on the balances of the various general ledger accounts. In the course of his examination the auditor will have referred to various forms of evidence supporting entries to the general ledger accounts and the balances of the accounts. To complete his examination of the accounts the auditor should make tests which will assure him that all entries to the general ledger originated from sources which have been tested by him and which he is satisfied are accurate and appropriate.

The best way for the auditor to satisfy himself concerning the general ledger postings is to select one month of the year and trace all figures shown in such source records as journals, journal vouchers, or worksheets to the corresponding entries in the general ledger. Each ledger entry verified in this manner should be tick-marked neatly, and in such a fashion as to avoid incurring the animosity of the general ledger bookkeeper, who may take considerable pride in the neat

appearance of the general ledger. Also, each entry should be reviewed in a general way to determine that it appears proper and reasonable.

After all source records have been covered by the above test, the auditor should review each general ledger account for the test month to be certain that all entries have been tick-marked. This procedure is the final and vital step in determining that all entries during the month were valid and originated from appropriate sources. Any entries not ticked should be carefully investigated since they would suggest that unauthorized entries had been made to the ledger—possibly to cover a defalcation, to conceal an out-of-balance condition, or to manipulate the records to show a more favorable financial or operating picture.

The reader may wonder at the apparent duplication implied by the above test, since tests of entries to the general ledger were also mentioned in connection with the examination of the various balance sheet and income statement accounts under the objective relating to the examination of supporting internal records. It is true that these tests could all be made covering the same month, and the ledger entries tick-marked as described above. The difficulty, however, lies in the fact that all the work could not be done at one time. The general ledger would have to be released from the auditor's control during the course of the checking, and when the work was finally finished the auditor would have no way of knowing whether the tick marks were his own or ones added by someone else to give an appearance of validity to a fraudulent entry.

Minutes of Directors' and Stockholders' Meetings

At numerous points in the preceding chapters reference was made to matters which would be found in the minutes of meetings of the board of directors or stockholders. Included were such items as authorization of plant expenditures, approval of contracts with other companies or individuals, authorization of loans or sale of capital stock, declaration of dividends, appointments of officers, and designation of compensation to officers. The importance of the actions and matters considered at stockholders' and directors' meetings suggests the need for the auditor to be fully informed about those matters if he is to be in a position to express an unqualified opinion on a client's financial statements.

To gain the required information the auditor should request permission to read the minutes, and he should abstract all matters which have a bearing on the financial statements. Those notations should then be cross-referenced to the working paper schedules which are

affected, as was done on schedule XX at the close of this chapter. In a first audit for the client the auditor should read all minutes since the inception of the business, although fewer items will be abstracted in the working papers than in the case of minutes for the current year. Matters of only momentary importance, such as the authorization of officers' salaries or short-term loans, would be ignored; however, actions authorizing new bank accounts and designating persons empowered to sign checks on those accounts, declaring dividends, authorizing the sale of stock, revaluing assets, or adjusting any account balances are examples of items which should be noted.

The importance to the auditor of having full knowledge of such matters is so great that should the client decline to permit the auditor to examine the minute books, the auditor should probably conclude that he cannot safely express a favorable opinion on the client's financial statements. The fact that other phases of his audit examination revealed no exceptions or differences would not change the situation.

A reason the client might give in denying the auditor access to the minute books might be the confidential nature of important actions recorded in the minutes. The very fact that those matters are important is, of course, the principal reason the auditor should have knowledge of them, and the client should have no fear that the auditor will commit a breach of confidence. The auditor's professional practice is contingent, among other things, upon his ability to treat confidentially all information concerning the affairs of his client, and the rules of professional conduct by which he is governed further evidence that fact (rule 16).

To stress the importance of making the minutes of all meetings available to the auditor, many auditors ask the secretary of the client corporation to prepare a letter addressed to the auditor listing all meetings of the board of directors and stockholders held since the auditor's previous examination. In that letter, the secretary is also asked to state that the full and complete record of those meetings has been presented to the auditor for his inspection. This minute letter should be filed with the auditor's abstract of the minutes as evidence of the client's actions. The auditor is then protected if subsequent events should prove that the audited statements were incorrect or misleading, and that the sole evidence of the true facts was contained in the minutes of a directors' or stockholders' meeting which were not presented to the auditor for his scrutiny.

Review of Subsequent Events

The auditor's certificate specifically states that it pertains to a balance sheet for a given date and the related income statement for a

period ending on the balance sheet date. Nevertheless, the auditor is generally held to be responsible for disclosing events occurring after the balance sheet date which have an important bearing on the financial statements. The period of responsibility for such disclosure ordinarily extends to the date of the auditor's certificate.

Types of Events. There are three types of events which may occur after the balance sheet date which should receive the auditor's attention. The first of these types has already been referred to in the preceding chapters dealing with the verification of statement figures. Included would be such events as the subsequent collection of a large account receivable which had appeared doubtful of collection at the balance sheet date, the initiation of bankruptcy proceedings against a customer with a large accounts receivable balance on the client's books, or the payment of a major liability which had not been recorded at the balance sheet date. The auditor's regular examination procedures should be designed to reveal all such subsequent events, and the auditor is expected to make full use of the information. Financial statement figures should, of course, be adjusted to reflect such subsequent events.

The second type of event which might occur subsequent to the balance sheet date would not require adjustment of the statements although it would affect future statements. Nevertheless, the events should be disclosed in the current statements in view of the significance these events might have to a person attempting to reach a decision based on the financial statements. Examples would be the subsequent sale of a large bond issue with restrictive covenants, merger with another company, disposal of a large portion of the client's productive assets, or serious losses resulting from fire, flood, or other casualty.

The third type of subsequent event has no direct accounting implications, and disclosure is not usually made of such events. The auditor should, however, be fully aware of the existence of these events and should carefully weigh the need for disclosure. Examples of the type of event in question would include changes in management, product changes, strikes, unionization, and loss of important customers. There are two reasons why such events are not usually disclosed. One is that even if they occurred before the balance sheet date they would not warrant a specific comment in the financial statements. The second reason is that mention of such events might cause the reader to puzzle over the inference intended to be drawn from the comment. For instance, the reader would probably wonder whether a reference to a change in management was intended to indicate a favorable or an unfavorable condition. Although no reference

might be made to events of this type in the financial statements, the auditor should know about the events since they are likely to explain variations in the operating and financial results during the succeeding year.

Responsibility for Disclosure. When events of any of the three types occur, the primary responsibility rests with management for making any needed disclosure in the financial statements. The auditor should, however, extend certain audit procedures to cover the period between the balance sheet date and the date of his report, since he is obligated to make independent verification of the adequacy of the disclosures made by management. Should the auditor discover events which he feels require disclosure, and the client refuses to make such disclosure, the auditor should take recourse in the content of his certificate. He may disclose the events in his certificate or he may qualify his opinion concerning the fairness of the financial statements.

Audit Procedures. Audit procedures to be used by the auditor in reviewing events occurring subsequent to the balance sheet date would include the following:

1. Review of bank statements for evidence of returned checks.
2. Review of accounts receivable collections.
3. Review of cash receipts book for proceeds of loans or significant sales of inventory or plant assets.
4. Review of general journal for material entries.
5. Review of any interim financial statements which the client has prepared.
6. Review of minutes of directors' or stockholders' meetings.
7. Inquiry of management concerning events which may have occurred.

As suggested earlier, the auditor's responsibility for disclosure of subsequent events extends to the date of his report in most instances, and the date of his report should therefore correspond with the date the auditor's work in the client's office was completed. If the report cannot be issued until a much later date and the auditor wishes to have the report date correspond with the actual issuance of the report, he should include a statement that his report is based on field work completed at an earlier date.

Signed Copy of Client's Financial Statements

Although the practice is not universal, it will usually be advantageous for the auditor to obtain a signed copy of the client's finan-

cial statements in their final form. The principal officer of the client, and possibly the chief accounting or financial officer as well, should sign the statements with a notation that they are the final statements for the year. If the client does not prepare his own financial statements but relies on the auditor to do so, a copy of the statements prepared by the auditor should be accepted and signed by the appropriate officer or officers.

There are two reasons for obtaining signed financial statements. One is to impress upon the client his primary responsibility for the statements. The second is to protect the auditor from any complaint by the client that the statements in the auditor's report do not agree with those the client has prepared. In view of the second reason the auditor should, of course, make certain that the signed statements actually do agree with the statements to be presented with the auditor's report.

List of Adjusting Entries to Be Recorded by the Client

Almost invariably the auditor's examination will reveal adjustments to be made to the client's records. The auditor should prepare a copy of the adjustments shown in his working papers for use by the client in making the necessary adjusting entries. If any of the entries relate to transactions already recorded by the client in the following period, the auditor may also find it desirable to give the client a list of reversing entries to be made. If the auditor has maintained the proper distinction in his working papers between adjusting entries and reclassification entries, only the adjusting entries need be given to the client.

In England, the auditor is required to state that the financial statements in his report agree with the client's books, and thus the client must make all adjusting entries which the auditor has made in his working papers. Although no such requirement exists in the United States, the auditor will usually be well advised to follow the requirement as nearly as possible. One difficulty often stands in the way, however. The client will usually have closed his books for the year being audited and will have begun entering transactions for the following year before the auditor has concluded his examination. Under those circumstances, adjustments affecting income or expense can be made to the retained earnings account.

The auditor may find it greatly to his advantage to verify the posting of the adjustments after they have been made. If the adjustments have not been made, or have been made incorrectly, the audit for the following year will be complicated accordingly.

Representation Letter

As a final step in the audit process, many auditors ask their clients to sign what is known as a representation letter. The representation letter is merely an expanded version of the liability letter discussed in the chapter on liabilities. Its purpose has been described as follows:

> The information shown by written representations would have to be obtained, where pertinent, either orally or in writing. Reducing it to writing provides evidence, avoids misunderstandings, and has the additional advantage of reminding the client of his primary responsibility for the correctness of the statements. There is no evidence that the representations are regarded as relieving the independent auditor of any of his audit functions or responsibilities. The purpose is rather to secure the active cooperation of the client. They complement, rather than substitute for, a proper examination, and every practicable means should be used to substantiate the information developed by the inquiries.*

The following example illustrates a possible form for such a representation letter.

* *Codification of Statements on Auditing Procedure,* American Institute of Accountants, 1951, p. 49.

January 29, 1957

Black and Decker
Certified Public Accountants
Kansas City, Missouri

This letter is furnished in connection with your examination of our financial statements for the year ended December 31, 1956. The purpose of the letter is to give you our assurance that to the best of our knowledge and belief the company's accounts and financial statements have been maintained and prepared in such a manner as to properly present the financial position and results of operations of this company. In this connection we make the following representations, which we understand have been or will be reviewed or checked by your representatives within the normal scope of your examination of our accounts:

1. The company has satisfactory title to all assets, and all mortgages or other liens outstanding against the assets have been recorded in the accounts.
2. Raw materials, work in process, finished goods, and supplies have been physically inventoried at November 30, 1956, and the accounts were adjusted to agree with the physical inventory.
3. The carrying value of all property, plant, and equipment which was retired, abandoned, sold, or otherwise disposed of at December 31, 1956, has been removed from the accounts.

4. The depreciation provided during the year and the amount of accumulated depreciation at December 31, 1956, were adequate to cover the amortization of the cost of property, plant, and equipment over the life expectancy of those assets.
5. The company had no unrecorded or contingent assets of material amount at December 31, 1956.
6. To the best of our knowledge all known or ascertainable direct liabilities of the company at December 31, 1956, have been recorded in the accounts at that date, with the exception of minor items that are carried forward from month to month in ordinary operations.
7. The company had no material contingent liabilities that were not provided for in the accounts at December 31, 1956, except as set forth below:

Kind of Contingent Liability	*Amount if Determinable*
Upon customers' or other notes that were discounted, sold, or otherwise transferred	
Upon drafts negotiated	
For Federal or state income taxes	
For accommodation endorsements	
For guarantees of notes or securities of other issuers	
For guarantees of company products or service	
Upon leases	
Under repurchase agreements	
Under contracts or purchase agreements	
Under profit sharing arrangements	
Under pending lawsuits	
For all other contingent liabilities of any nature	

8. The company has entered into purchase commitments that approximated $350,000 at December 31, 1956, which have arisen in the normal course of operations and contain no unusual amounts.
9. Amounts due from directors, officers, or stockholders have been identified as such in the accounts.
10. The company has no shares of its capital stock reserved for officers and employees, options, warrants, conversions, or other requirements.

R. H. French
President (or executive officer)

H. A. Onsgard
Treasurer (or chief financial officer)

R. A. Elmore
Controller (or chief accounting officer)

All accounts are stated in conformity with generally accepted accounting principles, which have been applied on a basis consistent with that of the preceding year.

R. A. Elmore
Controller (or chief accounting officer)

AUDITING REVISITED—OR ONCE OVER LIGHTLY

The preceding section concludes the discussion of the examination of financial statements by the independent auditor. The two following chapters deal with the auditor's final responsibility: preparation of the report on his examination. At this transition point it seems advisable to reconsider briefly, from an over-all point of view, what has preceded.

In making his examination of a client's financial statements the auditor's principal objective is to reach a conclusion as to whether he is justified in giving his endorsement to those statements in his short-form report, or certificate. The primary responsibility for the accuracy and fairness of the statements rests with the client, and the client retains the final right to determine the form and contents of the statements. If the auditor is not satisfied with the statements as they have been prepared by the client, and if the client refuses to change them, the auditor's recourse is through qualification of his certificate. The client is similarly privileged to set the scope of the auditor's examination if he so desires, but he must be content with a qualified auditor's certificate if the restrictions he places upon the auditor make it impossible for the auditor to formulate a satisfactory opinion about the financial statements.

The auditor's approach to the examination should be positive; that is, he should undertake the examination with the idea of proving that the client's figures are correct and that the statement presentation is acceptable. The auditor's first step is to ascertain the manner in which the client has arrived at the final accounting figures. The intended and actual accounting and office routines as they affect the accounts are reviewed from the standpoint of internal control, which includes such matters as internal check, internal reports to management, and, in larger organizations, internal auditing.

The soundness of the client's internal control directly affects the probable accuracy and reliability of the accounting figures, and the auditor accordingly adjusts the scope of his examination in relation to his conclusions concerning the system of internal control. In making his examination the auditor gathers necessary evidence by retracing the various steps taken by the client, usually in reverse order. That is, he traces figures from the final financial statements to supporting worksheets, then to the general ledger accounts, and in support of the general ledger entries he examines the various books of original entry. The mathematical accuracy of these books is proved, individual entries are traced to supporting documents, and finally

the original authorizations for the transactions are examined to complete the chain of evidence.

As the auditor relates supporting evidence to the transactions and account balances, he must be watchful that generally accepted accounting principles have been applied on a basis consistent with that of the preceding year, and he must be alert for facts which will affect the presentation of the accounts in the financial statements.

The auditor must be careful, too, that in making his examination he does not become overly absorbed in the mass of details which are present. In addition to proper attention to details, a successful audit requires a thorough understanding of the client's business and its operation, and of the external factors which affect the business. One of the auditor's first requests as he begins a new audit should be to have one of the company officers escort him on a tour through the plant. The purpose of such a tour should be to lend additional meaning to the accounting figures and to enable the auditor to gain a clearer picture of company operations. In the course of the tour the auditor should acquaint himself with the company product and the manufacturing processes, thus aiding his understanding of the flow of costs through the accounts. He should note the location of the receiving and shipping departments and their physical relationship to each other as an aid in his evaluation of internal control. His observations concerning the types of materials used and the manner and orderliness with which they are stored will affect the observation of the physical inventory taking. The physical appearance of the buildings, machinery, and other plant assets will be useful in evaluating balances in the plant and depreciation accounts. The general housekeeping in the plant will give some indication of what the auditor should expect to find in the repair and maintenance accounts. These are but a few of the more important benefits to be gained from a firsthand view of the plant.

Discussion with key executives should give the auditor valuable information about problems the company is facing. Such information will help to explain the variations the auditor will notice in comparing figures with previous years or in analyzing month-to-month changes. The auditor should also supplement his understanding of the client's internal affairs with a knowledge of external factors affecting the client. These would include sales trends in the industry, price trends, the vigor of competition in the industry, the availability of raw materials, long-term prospects for the industry, and new developments in product design and use of materials, to mention only a few possibilities.

If the auditor is adequately supplied with such information, and is thoroughly acquainted with the client's operations, he can be confident that the careful performance of the verification phases of his examination will give him a sound basis for the expression of an opinion on the client's financial statements.

PRELIMINARIES TO THE AUDIT ENGAGEMENT

As mentioned earlier, it is desirable that audit engagements gravitate to the auditor solely on the basis of his professional reputation. Such an arrangement helps to assure those desiring professional accounting services of the best possible satisfaction of their needs. A number of the rules of professional conduct of the public accounting profession are designed to help accomplish this objective. Examples (see Appendix D) include rule 3, which prohibits the accountant from paying commissions to persons not members of the profession for work referred to the accountant; rule 7, which forbids the accountant from directly or indirectly soliciting clients; rule 10, which prohibits the accountant from advertising his services (a "card" may be inserted in a newspaper announcing a change of address or personnel of a firm, and a paid listing may be inserted in a directory provided the listing is not differentiated from other listings in the directory); and rule 14, which prohibits the accountant from making competitive bids for engagements.

Obtaining Clients

For the person who may some day hope to enter the public accounting profession as an individual practitioner, the preceding comments are likely to pose this question: "If I can't advertise, if I can't solicit clients, and if I can't compete with established accountants by bidding for the work that is available, how can I ever hope to establish a practice?" Perhaps the easiest and most obvious ways of obtaining a practice are to buy an existing practice or to obtain employment with an existing practitioner who is seeking someone to take over the practice. Usually, however, the public accountant seeking to have his own practice must plan to establish his practice the slow, hard way, and accept a very meager income as he attempts to build up his prestige.

Since clients are expected to seek out the accountant, obviously the person with the greatest circle of friends and acquaintances in the business world has the best initial chances of success. To capitalize on

this potential advantage, however, the individual must have demonstrated in the past through his college record, past employment, and personal contacts that he is a capable accountant; and he must serve his clients in such a way that opinions as to his ability are strengthened, rather than weakened.

Attorneys and bankers are usually the best source of referrals to the practitioner, second only in importance to an enthusiastic group of well-satisfied clients. Contact with potential clients, attorneys, and bankers can be gained through memberships in country clubs and fraternal organizations, but these memberships are not necessarily the best way of making such contacts, and certainly they are not the only way. The active worker in a civic club is assured of gaining attention and respect for his ability, and the same is true of good workers in church organizations and fund drives for charitable or civic purposes. The young public accountant is likely to be asked to serve as treasurer or auditor of these organizations, thus presenting the best possible opportunity for demonstrating his professional skills.

Speeches before civic clubs or other groups are certainly an excellent way of presenting oneself to other members of the business community. Such opportunities cannot, of course, be solicited, but a hint can be dropped on occasion, and tax information is always in demand during the tax season. Newspaper or magazine articles can be prepared and submitted without a specific request, and if accepted are likely to result in recognition to the writer and invitations to discuss similar matters before various groups.

Establishing a Regular Source of Income

Since early progress in the profession tends to be quite slow, many practitioners begin on a part-time basis while they are holding another job. Teaching lends itself well to this type of arrangement, but even an industrial accounting job offers many free evening and week-end hours. Employment with a public accounting firm should not be considered, however, since it would hardly be ethical for a person to compete with his own employer.

For the person who plans to enter the profession immediately on a 100 per cent basis, several "bookkeeping" or "monthly write-up" jobs are almost essential to assure some steady income, even though the income may be somewhat meager. This type of work is sometimes rather disparagingly referred to as "professional bookkeeping" rather than true public accounting, and although the work requires less

professional skill than many other types of public accounting services, the work is important to both the profession and its clients—and rightly so. In larger cities, another possible source of regular income is night-school teaching, and occasionally some daytime teaching may be available. In the case of bookkeeping service, however, the young practitioner must be careful not to become overly engrossed in his work. He should not get into a situation in which he may not have time to accept other types of engagements for which he is peculiarly qualified, and which present a greater challenge and proportionately greater income. Also, preoccupation with a regular task may cause the individual to lose the perspective and vision required to handle major accounting problems and to neglect his reading of current literature and his activities in his professional organizations.

Fees

When a request for his services comes to the accountant, either through personal acquaintance or the recommendation of others, several things are likely to happen. First, after the nature of the required services is made known, the accountant is likely to be asked for an estimate of his fees. The accountant may properly give such an estimate if he has no knowledge that the prospective client is also considering estimates from other accountants. For his own protection, however, the accountant should make it clear that it is difficult to estimate accurately such fees in advance, and that the final fee, based on the accountant's regular per diem rates, may be more or less than the estimate. The accountant will, however, be under considerable pressure to keep the final fee from exceeding the estimate.

Per diem rates vary with the size of the firm, the locality, and the experience of the accountant. A reasonable range of fees for the junior accountant would be from $20 to $40 per day, for the senior accountant, from $30 to $60 per day, for the manager, from $40 to $80 per day, and for the partner of a well-established accounting firm, from $50 to $200 per day. For the individual practitioner who is just entering into practice, the fees would tend to be about on a par with those for the senior staff accountant. For out-of-town engagements the client is also charged for the accountant's travel and living expenses.

The reader who is planning on entering the profession as an employee of an accounting firm should not mistakenly assume that his salary will approximate the rate at which his time is charged to the client. Staff accountants' compensation tends to vary between about 40 per cent to 50 per cent of their daily billing rate. The partner of

the accounting firm does, of course, receive as profit some of the difference between the staff man's salary and billing rate. The bulk of the difference, however, is consumed by "lost time" when the staff man is not working on a regular engagement, the cost of staff training, vacation and sick pay, payroll taxes, and office overhead expenses.

Time Estimates

The time estimate for completing an audit engagement is an important factor in the over-all control and supervision of the engagement and in keeping fee charges to the client at an acceptable level. The total estimate is usually built up by estimating the time to be required for each step of the audit program. In the case of a repeat engagement, the detailed time records of the work for the preceding year will be an important factor in setting the new estimates. Modifications should be made, however, if the total time for the preceding year was excessive, if special conditions present during the preceding year will no longer be a factor, or if special conditions are anticipated for the current year.

The pressure to complete a job within the time estimate, or at the lowest cost to the client, is a significant aspect of public accounting, and the prospective employee or practitioner should either be prepared to expect and accept such pressure or he should plan on entering some line of work other than public accounting. The pressure is always present and is often severe, even to the extent that promotion or professional success will usually hinge on whether the accountant can work fast enough to keep within the time estimate. The reader should not falsely assume, however, that the time estimate, once set, determines how the job is to be done. Adaptability to conditions as they actually exist is essential to the successful completion of an audit. The tail cannot be permitted to wag the dog.

If, however, time estimates are exceeded, the accountant should be prepared to give any explanation or justification which may exist for the overrun. Acceptable explanations would include an increased volume of transactions, disorderly files and records which required additional time to locate documents and substantiate account balances or entries, or an expanded scope required by unexpected deficiencies in the client's internal control. Then, too, in some cases the senior may have to report that the cause of the overrun was the inability of one of his assistants to perform the required work in a reasonable amount of time. In other cases, the manager or partner may

be forced to conclude that the cause was the inability of the senior to properly organize and supervise the work.

Confirmation of Arrangements for the Conduct of the Audit Engagement

The beginning point in any audit is the initial contact between the accountant and the client. This initial contact is especially important in the case of a new client, as compared with a client who has been served for many years. In either case, however, the accountant must fully understand the needs of the client. Merely agreeing to "make an audit" is certain to result in misunderstanding, confusion, and disagreement during the conduct of the engagement. The accountant should know exactly what it is that the client wants and expects, although frequently the accountant may find that what the client actually *needs* is something entirely different.

The importance of these matters should suggest that the initial contact should usually be made between a partner of the accounting firm and the principal officer of the client. In the case of a new client, the first contact may be followed by several days during which a representative of the accounting firm will review the records and reports of the client. Only after this review is completed will any concrete recommendations or proposals be made to the client. For a recurring engagement, however, a telephone conversation may be adequate to complete all arrangements.

In either event, the understanding which is finally reached should encompass the terms of the engagement, the way in which it is to be conducted, and the fees to be charged. Because the accountant will have had more experience in these matters than his client, it is his responsibility to broaden the area of understanding to include any points which experience has taught him may be the cause of controversies at a later date. Of particular importance is the question of whether the client wants or needs an unqualified certificate covering his financial statements. If an unqualified certificate is desired, the client should understand that the auditor will then be obligated to undertake the relatively costly procedures of confirming receivables and observing and testing the taking of the physical inventory.

Once a final agreement has been reached, a formal letter confirming the arrangements is usually written to the client. A copy of the letter in the audit files then serves to inform the senior accountant about what is to be done. The example on page 554 illustrates such a letter.

October 5, 1956

Machine Products Co.
Wichita, Kansas

This letter confirms the understanding reached yesterday between R. H. French, president of Machine Products Co., and A. B. Decker, a partner of this firm.

We are to make an examination of the financial statements of Machine Products Co. as of December 31, 1956, and to render to you our opinion on those statements. The examination is to be conducted in accordance with generally accepted auditing standards, and will include such tests of the accounting records and such other auditing procedures as we may consider necessary. It is not contemplated that we shall make a detailed examination of all transactions, such as would be necessary to disclose any defalcations or irregularities which may have occurred. We shall, however, advise you of any findings which appear unusual or abnormal, and we shall thoroughly review the system of internal control. Our comments on your system of internal control will be furnished to you in a separate memorandum.

Our charges for this examination will be at our usual per diem rates, plus any out-of-pocket expenses for traveling or similar items that are incurred.

Your decision to entrust this examination to us is greatly appreciated. You may be certain that every phase of the examination will receive our most careful attention.

Very truly yours,
Black and Decker
Certified Public Accountants

By A. B. Decker

The engagement letter illustrated above is quite general. Special circumstances may make it desirable for any number of additional matters to be included in the letter, as for example, the date the auditor's report is to be delivered, whether or not a long-form report is to be prepared in addition to the short-form report (certificate), limitations on the scope of the examination to be made, assistance to be given the auditor by the client's staff, the estimated fee for the examination, or a list of the per diem rates to be charged.

PUBLIC ACCOUNTING SERVICES

The various types of services which the public accountant may be called upon to render, and which he should be prepared to offer, are

surprisingly broad. Some of the more important services which are most frequently performed are listed below and briefly described.

Opinion on Financial Statements

The principal concern of this book has been with the auditor's examination designed to enable him to express an opinion on the client's financial statements. The formal written opinion, which may be used and relied upon by creditors, investors, management, or various other groups, is more fully discussed in the following chapter. Many of the other services which the public accountant may perform for his client are likely to stem from or be incidental to the performance of a periodic independent audit.

Detailed Report Analyzing and Interpreting Operations and Financial Position

In those situations where management is not obtaining a clear picture of financial and operating results from the regular internal reports, the auditor may supplement his short-form report on the financial statements with a longer report designed to meet the needs of management. In other cases, a long-form report may be prepared to give supplementary financial and operating information to creditors or other groups who may have a need for such information. Such long-form reports are more fully discussed in Chapter 18.

Recommendations for Accounting Procedures and Internal Control

The auditor's close contact with a client's accounting procedures and internal control place him in an excellent position to make valuable recommendations concerning these phases of the client's operations if deficiencies are present. The recommendations may be directed toward making the accounting process more efficient or less costly, or they may point out ways of strengthening internal control by increasing the amount of information, protection, and control afforded by the accounting system. Since the auditor's comments on the accounting system and internal control are essentially an "extra" service, the comments are usually given in a separate letter or report addressed to a key management official.

Such comments are a valuable device for strengthening auditor-client relations. In many cases the independent audit is required largely for the benefit of third parties, and under those circumstances even the best possible audit is likely to make little impression upon

the persons who engaged the auditor. But if, in addition to making the audit, the auditor can present some tangible suggestions for reducing accounting costs or increasing the value and usefulness of the accounting system, then he is rendering a constructive service of direct value to the client. The client's reaction is almost certain to be favorable, thus placing the auditor higher in the client's esteem.

There is also a negative factor which makes it vital that the auditor comment on weaknesses in internal control. Should a weakness be such as to enable an employee to defraud the client and the client is later defrauded, it is possible that the client would have a cause of action against the auditor for negligence in failing to report the condition which made the fraud possible. In addition, and perhaps far more importantly, the client's opinion of the auditor is likely to be unfavorably affected.

Management Services

The public accountant is often called upon, or may offer his services, in connection with management problems which may have little or no relation to the independent audit. These might include determining what type of business organization is best suited for the client, assisting in the reorganization of the business, or working out financial problems by suggesting the best methods of financing under the circumstances and then assisting the client in obtaining the needed funds. More closely allied to the public accountant's usual activities are such management services as designing and installing accounting systems, revising internal reports to make them more useful and effective, assisting in the preparation of budgets, and making studies of operating costs or the cost of plant assets.

Another way in which the public accountant can assist a client, and also make his own job easier if he audits the client's records, is to encourage the client or the bookkeeper to call on the accountant for information and advice on accounting problems which may occur. Personal visits or telephone calls from the client concerning such matters make for greater continuity in the relationship between the client and the auditor, give the auditor an opportunity to be of greater service, and may save the auditor the trouble of later having to undo something that was originally handled incorrectly.

Detailed Audits

Occasionally a client may suspect that fraud has occurred or may question the accuracy of the accounting records. Such discrepancies are not likely to be detected by the regular examination of the finan-

cial statements unless the amounts involved are material in relation to financial position and results of operations. Consequently, if the client wishes to have the full facts concerning such matters, the auditor must be specifically authorized to do the additional work necessary to obtain the desired information.

Essentially, a detailed audit is a thorough verification of the accounting processes associated with recording business transactions. The detailed audit may encompass all types of transactions occurring during a specific period, such as a month or a year, or only certain types of transactions, such as sales, accounts receivable charges and credits, cash receipts, cash disbursements, or some particular type of cash disbursement, like purchases, payroll, or petty cash disbursements. Also, the audit may cover each individual transaction which occurred, or it may simply cover a relatively large sample of the total transactions.

For the transactions selected for verification, each record and each step in the recording process should be verified. Included would be the evidence authorizing a transaction (such as a purchase order), the internal documents prepared in connection with the transaction, entries and footings in the books of original entry, and postings to general and subsidiary ledgers. Thus the detailed audit is much like the tests which the auditor makes in reviewing the client's system of internal control, except for the extent of the verification involved.

If the detailed audit is to be performed on a sampling basis, the auditor must be alert to any special problems created thereby. For instance, a test of entries in the subsidiary accounts receivable ledger will not reveal fictitious entries if the tests are all made from the source documents to the ledger postings. On the other hand, testing only from the ledger postings to the source documents will not show that all transactions and the related documents have been recorded.

Taxes

Tax work represents a major phase of the practice of most public accountants. Although much of the tax work is done for clients for whom regular examinations are made, in many cases the accountant's sole service to the client may be the preparation of the client's tax returns. The preparation of the tax return is likely to be relatively more expensive in such cases, since the review or analysis of many accounts normally made as a phase of the regular audit examination will have to be made as an incidental step to the preparation of the return.

One of the most vital phases of tax work is tax planning, and this

type of work presents the public accountant with an excellent opportunity to demonstrate in a tangible manner the value of his services. Tax figures based on alternate plans show the client exact savings in dollars and cents, and most accountants increase their income by basing their fees for tax matters on the savings which have been demonstrated, as well as on the time spent.

If the accountant is to be of maximum service to his client in tax planning, the client should be encouraged to consult the accountant before entering into any important contracts or transactions. Tax considerations are always present in such matters, and often the transaction can be handled in a way which will effect substantial tax savings.

The accountant is also often asked to prepare the personal income tax returns of partners or officers of the client firm, and here again tax planning should be brought into the picture. Estate taxes are an important consideration in such planning, as are the various means of splitting income to reduce the total taxes paid on a given amount of income.

Reports to the Securities and Exchange Commission

Corporations which intend to issue and sell their securities in interstate commerce and corporations whose securities are listed with a securities exchange must register their securities with the Securities and Exchange Commission. In most cases these corporations must also file quarterly and annual reports with the Commission. The purpose for requiring the registration of securities and filing periodic reports with the S.E.C. is to give the Commission an opportunity to review financial statements from the standpoint of adequacy of disclosure before they are released for use by stockholders and potential investors.

The primary responsibility for the fairness of the financial statements rests, of course, with the management of the registered corporation. To further protect investors against misleading statements, the various acts under which the S.E.C. operates require that financial statements be accompanied by the written opinion of an independent public accountant. The certifying accountant is in turn made liable to investors for any losses incurred when financial statements are subsequently proved to be false or misleading. The accountant's principal defense against such claims is to prove that, based on a reasonable investigation, there were sufficient grounds for believing that the statements were true and did not omit any material fact which would make the statements misleading.

Rules and Regulations Governing Reports to Be Filed. The reports to the S.E.C., including the audited financial statements, must be filed with the Commission in accordance with the various forms (S-1, 1-MD, 10-K, and so on) and the instructions accompanying those forms, as prescribed by the Commission. A booklet entitled *Regulation S-X* lists the various rules and regulations of the S.E.C. pertaining to the administration of the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940. Included are rules pertaining to the form and content of financial statements and supporting schedules required in most of the registration statements and reports specified by the various securities acts. Also important to the public accountant serving his client with respect to reports filed with the S.E.C. are the Accounting Series Releases of the Commission. These releases contain the opinions of the Commission as they relate to accounting principles, independence of certifying accountants, and other matters of importance to accountants expressing an opinion on financial statements to be filed with the S.E.C. Also included in the series are the findings and opinions of the Commission in connection with hearings concerning the suspension or disqualification of accountants from practice before the Commission.

There is obviously a large body of material with which the accountant must be familiar if he is to serve his client effectively in connection with S.E.C. matters. The intention of the comments included here is merely to make the reader aware of what is required in a very general way, and to suggest the material which must be consulted to gain a complete picture of the requirements. In passing, however, two of the requirements appear to warrant further consideration. First, for those registered companies which must file annual reports, usually on form 10-K or 1-MD, the reports must be filed with the S.E.C. within 120 days after the end of the company's fiscal year. Each report must, of course, include an independent public accountant's opinion on the financial statements which are part of the report.

Effective Date of Registration Statements. The second requirement pertains to the so-called "effective date" of registration statements filed with the S.E.C. A registration statement must be filed when a company subject to the various acts plans to issue securities or obtain a listing on a securities exchange, and must include a certified balance sheet and certified statements of income and surplus for the three years preceding the date of the balance sheet. After the registration statement is filed, the S.E.C. has a twenty-day period in which changes in the statements or additional information can be requested. If the

registration statement is not amended in accordance with the Commission's recommendations, the Commission can issue a "stop order" refusing to permit the statements to become effective until amended.

If no changes are requested, or if any required changes have been made, the registration statement becomes effective twenty days after it is filed, although by special request the statements can be made effective at an earlier date. The wording of the Securities Act of 1933 is such that a certifying accountant is held liable for material misstatements or omissions existing in the certified statements accompanying a registration statement *at the date when the registration statement becomes effective*. The effect of this arrangement is to extend the auditor's responsibility for events subsequent to the balance sheet date beyond the date of his certificate and up to the effective date of the registration statement. The review to be made during this additional period would include inquiry of appropriate officials concerning important developments which might have an effect on the financial statements, a review of any statements prepared for internal purposes, and a review of the principal books of account. Any important developments discovered in this manner would necessitate an amendment to the financial statements filed with the Commission.

Accounting Principles Relating to Financial Statements Filed with the S.E.C. Fortunately, the S.E.C. has not undertaken to dictate the accounting principles to be followed in statements filed with the Commission. Had that been done, there might have arisen two bodies of accounting principles: those acceptable to the S.E.C. and those acceptable to the accounting profession. Although the Commission has left the general development of accounting principles to the accounting profession, in cases where there is no uniformity of practice the Commission has specified the method to be followed in statements filed with the Commission.

The Commission's attitude with respect to accounting matters is further set forth in its Accounting Series Release No. 4:

> In cases where financial statements filed with this Commission . . . are prepared in accordance with accounting principles for which there is no substantial authoritative support, such financial statements will be presumed to be misleading or inaccurate despite disclosures contained in the certificate of the accountant or in footnotes to the statements provided the matters involved are material. In cases where there is a difference of opinion between the Commission and the registrant as to the proper principles of accounting to be followed, disclosure will be accepted in lieu of correction of the financial statements themselves only if the points involved are such that there is substantial authoritative support for the practices followed by the

registrant and the position of the Commission has not previously been expressed in rules, regulations or other official releases of the Commission, including the published opinions of its Chief Accountant.

Compliance with Government Regulations

The auditor should not only be alert to possible violations of government regulations as he conducts his audit examination, but he is often requested to assist the client in connection with problems which may arise under those regulations. For instance, a concern charged with price discrimination under the Robinson-Patman Amendment to the Clayton Act might call upon the auditor for assistance in analyzing distribution costs and preparing a defense showing that price differentials were entirely accounted for by differences in distribution costs. During the period of price control, wage stabilization, and rationing during and after World War II, many concerns called upon their auditors for assistance in filing reports, determining base period prices or wages, and requesting relief under the various relief provisions of the acts. Problems arising under the Fair Labor Standards Act would also occasionally warrant the auditor's assistance.

Assistance to Clients Holding Government Contracts

Many problems arise in connection with government contracts, and the auditor is frequently requested to assist his client on such matters. Contractors who find it necessary to obtain V-Loans may ask the auditor to assist in preparing the extensive financial statements and cash forecasts required in applying for such loans. Another area in which the auditor can often be of assistance is in the design of records and procedures to be used in accounting for contracts which are subject to audit by the contracting government agency. Fixed-price contracts with price-redetermination provisions and cost-plus-fixed-fee contracts would both be subject to such audits. Of major importance in accounting for costs incurred in connection with government contracts is the proper separation of allowable and unallowable costs. The division should be made on the basis of the regulations issued by the contracting agencies. At the time this is written the armed services are using the definitions contained in Armed Services Procurement Regulations 8 and 15 in determining what costs shall be allowed. Among costs not allowed are bad debt expense, entertainment expense, contributions and donations, interest on borrowed capital, commissions and bonuses paid for obtaining government

contracts, and advertising other than in trade or technical journals or to secure employees.

Clients may also call upon the auditor for assistance in auditing subcontractors' termination claims and in the preparation of contract termination claims for the client. Supporting evidence for reimbursable expenditures must accompany such claims, and the problem of distinguishing between allowable and unallowable costs is always present.

A final area of assistance in connection with government contracts relates to renegotiation proceedings. In all cases, of course, the auditor must be familiar with the renegotiation of profits, since if profits are excessive and likely to be reduced by renegotiation, provision must be made for such reduction in the financial statements in order that they may present fairly the client's financial position and results of operations. In addition to this contact with the renegotiation of profits, the auditor may be called upon to assist the client in the preparation of the report to the Renegotiation Board and to be present at conferences when the report is discussed with the representatives of the Renegotiation Board. Preparation of a renegotiation report requires a careful determination of the portion of total sales which are subject to renegotiation and of the costs applicable to those sales. Supplementing these figures should be any data which will assist in justifying the profits earned by the contractor. Such data would include evidence as to the reasonableness of the costs and profits shown, the efficiency of the contractor, the amount of capital involved in fulfilling the contract, and the degree of risk associated with the contract.

Bookkeeping Service

The large national public accounting firms usually avoid performing bookkeeping services for their clients since their organization and mode of operation are not well adapted to providing such services. Also, the remuneration for such service is substantially less than for most other public accounting services because less professional skill is required. On the other hand, most local accounting firms and individual practitioners are likely to have a certain amount of such work. Often, particularly for newcomers to the profession, such services may represent the backbone of the accountant's practice.

The service rendered is usually the preparation of adjusting entries and monthly statements, but often the accountant will also prepare the books of original entry and post to the general ledger as well. Since the relationship between the accountant and the client is very

close in such cases, the accountant is usually consulted at quite frequent intervals as problems arise. Usually accounting problems will be involved, but problems involving taxes, financing, or operation of the business are also commonly discussed with the accountant.

Some accountants who provide a substantial amount of bookkeeping services to their clients operate in conjunction with such national service organizations as Mail-Me-Monday. The size of these organizations permits the efficient use of punched cards and tabulating machines in preparing monthly statements for clients. Perhaps even more important, however, operating data for similar businesses of a given size can be combined, thus making available operating statistics against which the individual client can evaluate his own operations.

Although occasionally a request for bookkeeping service will arise out of an audit engagement, usually the reverse is true. Careful attention to a client's bookkeeping needs and some educational information showing the benefits associated with quarterly or annual audits will often result in an audit engagement.

Selection and Training of Personnel

Since the auditor is often the person who is best informed about a client's accounting system and procedures (particularly in the case of small businesses), he may be requested to assist in selecting new personnel and training them in their new job. Even though such assistance may not appear to be true professional service, it is one more indication that the public accountant can serve his clients in a vast number of ways.

Machine Products Co. XX

Excerpts - Minutes of Board of Directors and Stockholders

12/31/56

J.A.S. 1/8/57

Reference to W/P schedule

Directors'

1/10/56 Approved officers' salaries, as follows, for 1956:

R. H. French, Pres.	$60,000
H. A. Onsgard, Treas.	48,000
D. R. Parson, Sec.	25,000
30-1 L. E. Woolley, Purch. V.P.	45,000
R. A. Elmore, Controller	45,000
G. V. Purcel, Sales V.P.	43,000
H. S. Groom, Prodn V.P.	55,000

TT-2 Declared dividend of $1.50 per share payable 2/1/56 to stockholders of record 1/25/56.

Voted to submit to stockholders for their approval sale of 50,000 shares of unissued stock at $20 per share.

Stockholders'

4/10/56 Re-elected entire board of 10 directors

Approved issuance of 50,000 shares of unissued stock at $20 per share

Directors'

SS 4/10/56 Authorized sale of 50,000 shares of unissued stock at $20 per share, to be sold through Faris, Downing + Co. Stock is to be offered first to existing stockholders, beginning May 1. Stated value of $10 per share established for the capital stock. Amounts received in excess of this figure, less expenses of sale, to be credited to separate paid-in capital account.

Directors'

TT-2 7/10/56 Declared dividend of $1.00 per share payable 8/1/56 to stockholders of record 7/25/56.

Directors'

AA 10/10/56 Authorized loan of $100,000 from Farmers' National Bank.

30-3 Authorized contribution to Community Chest, $2,000, Red Cross $500, Cancer Fund $500.

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Review Questions

1. If the auditor is testing postings to the general ledger for one month, working from the source records to the general ledger, what should he do after he has tick-marked all postings which he has tested from the source records?

2. Why is it not feasible for the auditor to make his tests of general ledger postings in conjunction with his examination of the various balance sheet and income statement accounts?

3. In connection with a first audit, what types of items should be abstracted when reading the minutes of meetings held in prior years?

4. Why would the auditor be unable to express a favorable opinion on a client's financial statements if the auditor is not permitted to read the minutes of the board of directors?

5. What is the purpose of asking the secretary of the client corporation to prepare a letter addressed to the auditor listing the dates of all meetings held by the board of directors and stockholders, and stating that the full record of those meetings has been presented to the auditor for his inspection?

6. Describe the three types of events which may occur after the balance sheet date and which are of significance to the auditor.

7. What procedures would be used by the auditor in reviewing events occurring subsequent to the balance sheet date?

8. Why should the auditor obtain a signed copy of the client's financial statements?

9. List the various representations which the auditor may request the client to make concerning the client's records and financial statements.

10. What intermediate records and steps are involved in tracing a figure in the financial statements back to its origin?

11. What are some of the things which the auditor should note in making his tour of the plant?

12. Why is it objectionable for public accountants to solicit clients?

13. Summarize the rules of professional conduct which are designed to cause the person in need of public accounting service to seek the practitioner who can best fulfill his needs.

14. State some of the ways in which a person entering the public accounting profession can properly seek to build up his practice.

15. What factors might cause an audit engagement to exceed the time estimate?

16. What information is likely to be included in the letter confirming the audit arrangements with the client?

17. What services should the public accountant be prepared to offer to his client?

18. "Although the auditor's comments and recommendations concerning the client's accounting procedures and system of internal control are merely incidental to the report of the auditor's opinion concerning the client's financial statements, the client is more likely to be influenced by the auditor's supplementary comments than by his audit examination in formulating an opinion as to the quality of the auditor's services." Explain.

19. Explain why the auditor might become financially liable to a client for failure to report a weakness in internal control.

20. How is a detailed audit performed?

21. What responsibility does the Securities and Exchange Commission assume in connection with the financial statements of registered companies?

22. When do registration statements filed with the S.E.C. become effective?

23. Of what significance is the effective date of a registration statement to a certifying accountant?

24. What is the position of the S.E.C. with respect to the accounting principles reflected in statements filed with the commission?

25. In what ways can the public accountant be of assistance to clients in connection with government contracts?

Questions on Application of Auditing Standards

26. What matters might appear in the minutes of directors' or stockholders' meetings which would be of interest to the auditor?

27. How would a detailed audit differ from an examination of financial statements?

28. Suggest a program for the detailed audit of gross sales for one month for a manufacturing concern with a satisfactory system of internal control.

29. The bookkeeper for the Darwin Manufacturing Co. matches the receiving memos (not prenumbered) prepared by the receiving department with vendors' invoices, prepares the voucher checks for payment of the invoices, and presents the checks and supporting data to the treasurer for his signature on the checks. The checks are then returned to the bookkeeper for entry in the cash disbursements record and mailing. The receiving department maintains a record of all goods received.

The auditor for the Darwin Manufacturing Co. has been requested to make a detailed audit of purchases for one month, the audit to be made on a test basis. He recognizes the importance of verifying that the recorded purchases agree with the receiving department's record of purchases, accordingly selects 25 per cent of the items shown by the receiving department records as having been received during the month, and traces those items to the entries for the purchases. Assume that the auditor makes no other tests relating to the receiving records.

Describe a method of fraud which could be perpetrated by the bookkeeper which would not be detected by the auditor's test of the receiving records and state the additional procedure the auditor should follow.

30. The president of the Dobson Co. pledged certain assets of the company as a performance guarantee on a contract to manufacture a series of special machines for a customer on a cost-plus-fixed-fee basis. In the representation letter prepared for the auditor by the president, however, he deliberately misstated the facts and indicated that the company had satisfactory title to all its assets and that no liens existed against the assets.

The audited statements carried no reference to the lien, and the auditor was unaware that the lien existed. The Dobson Co. was subsequently adjudged bankrupt, and a creditor who sold materials to the company on the basis of the audited statements collected only a portion of the total amount owing to him. If he brought action against the auditor to recover the loss on the basis of negligence on the part of the auditor for failing to reveal the lien on the company's assets,

could the auditor use as his defense the representation letter stating that there were no liens against the assets? Explain.

31. Would the S.E.C. be likely to accept a registration statement in which the auditor's opinion contained an exception to the effect that inventories were carried at cost in the financial statements, and that market value for the inventories was substantially below cost? Explain.

32. Before you have finished your examination and issued your audit report, your client experienced a serious fire in the main manufacturing plant. The fire loss is fully covered by fire insurance on building and contents.

(*a*) Is it likely that the fire should be mentioned in connection with the client's financial statements? Explain.

(*b*) Under what circumstances might no mention of the fire be necessary?

33. You are preparing a report to the Renegotiation Board for your client. Suggest various possible ways in which you might be able to demonstrate that your client's profits on government contracts were not excessive.

34. During a period of national emergency one of your clients, the Sierra Manufacturing Company, changed its operating program at the request of government procurement officials from one eight-hour shift per day to three shifts of approximately eight hours each. The new program was applicable to both office and factory operations although the number of employees required for the extra shifts in the office was considerably less than the regular office staff which continued to work customary daytime hours. In the factory, however, the two additional shifts each involved as large a working force as for the day shift.

The increase in the rate of production raised the question of accelerating depreciation taken on both factory and office equipment. State arguments for and against increasing the depreciation rates in accordance with the increased hours of operation. (A.I.A.)

35. It is customary for an auditor to make inquiries of non-accounting officers and responsible employees. State five different things about which an auditor might make inquiries that are not primarily aimed at determining the kind and degree of internal control. For each, explain the purpose of the inquiry and the title (or duties) of the person to whom the inquiry is addressed. (A.I.A.)

36. Explain why you believe the Rules of Professional Conduct prohibit competitive bidding on engagements.

37. "Since there is no price competition in the Public Accounting field, the profession is properly accused of following monopolistic practices." Comment.

38. "Since the test of whether an audit is completed is the amount of verification work done and not the amount of time which has been spent, a time estimate has no value." Discuss.

39. As a commissioner of the city of Pretty Prairie, would you vote for or against a resolution authorizing the mayor to secure competitive bids for an audit of the city's records for the past year? Justify your stand.

Problems

40. The Bloom Florist Shops are owned and operated by Sumner Bloom in two separate locations. Mr. Bloom has called you in for assistance. He states that until two years ago he operated only a small card and flower shop in an ad-

joining town. At that time he opened a new and modern shop in the city and affiliated with the Florists Telegraph Delivery Association.

Although he has had large gains in sales and profits in these last two years, Mr. Bloom has never effected any substantial improvement in his financial condition. He has looked into the problem from the personnel and physical standpoints and is satisfied with the honesty of the employees and the conformity of his product, service, and price with that of other florists. He asks that you look over the profit statement prepared for the prior fiscal year. *It is his intention that this should be on a cash basis.*

Your initial inquiries develop the following facts:

Each store makes a daily report of certain financial and other data to the administrative office. This report includes, but is not limited to, the following information: opening cash balance, cash sales, charge sales, cash received on account, amounts paid out, amounts deposited, and ending cash balance. In addition, the retail values of inbound and outbound F.T.D. transactions are listed.

(FTD is an association of florists providing florists' services in other cities and towns. The florist with whom the customer places an order retains 20 per cent of the retail value of the order, 80 per cent being credited to the florist in the city where the order is filled and delivery made. The remittance is not made directly, since all of these transactions are channeled through a central clearing house operated by FTD. Member florists receive a monthly statement showing inbound and outbound items, as well as service and advertising charges. A net credit balance is accompanied by a remittance from FTD; a net debit balance is paid by the florist to FTD.)

All disbursements by Bloom's shops, except for minor expenses shown on daily reports, are paid by check at the office.

No journals or ledgers are kept. Income statements have been prepared by the "bookkeeper" by summarizing on columnar paper certain of the data provided on the daily reports and from the checkbook stubs.

Following is the income statement so prepared for the fiscal year ended July 31, 1956:

BLOOM FLORIST SHOPS

Income Statement, Year Ended July 31, 1956

Receipts			
Cash sales	$100,000	Telephone and telegraph	3,000
Charge sales	120,000	Delivery expense and repairs	5,500
Inbound FTD orders received	25,000	Repairs and maintenance	3,000
20% of outbound FTD orders sent	3,000	Advertising	2,500
Miscellaneous	2,000	Discounts and refunds	2,000
Total receipts	$250,000	Depreciation and amortization	2,500
Expenses		FTD discount on orders received	5,000
Purchases, flowers	$ 80,000	Payments to FTD	4,000
Purchases, other merchandise	5,000	Interest	1,500
Salaries and wages	75,000	Miscellaneous	4,000
Rent	7,200	Total expenses	$209,200
Express and freight	7,000	*Net Profit*	$ 40,800
Utilities	2,000		

The following additional accounting information is assembled by you:

(1) Miscellaneous receipts include:

Refunds and freight claims	$ 200
Insurance proceeds reimbursing repair costs of delivery truck involved in accident	600
Federal income tax refund—1953	300
Sale of fully depreciated assets	700
Other items	200
	$2,000

(2) Miscellaneous expenses include:

Donations	$ 1,200
Dues and subscriptions	800
Taxes and licenses	500
Insurance	800
Bad accounts considered uncollectible	500
Cash over	200
	$ 4,000

(3) Cash payments to FTD for the fiscal year were ..... $ 4,000

(4) Cash receipts from FTD for the fiscal year were ..... $ 7,500

(5) FTD charges for advertising and expense (included in advertising expense on the income statement) ..... $ 1,500

(6) Depreciation on delivery equipment is on a four-year basis. Included in the depreciation taken is $250.00 for a station wagon, purchased February, 1956. You find that $2,000 was paid in cash in addition to a trade-in of $1,200 allowed for a family sedan which had not been used in the business. Mr. Bloom anticipates that 75% of the station wagon usage is attributable to the business.

(7) Cash received on account $115,000

(8) Inventories are not material and the estimated difference between the opening and closing balance is only $100.

(9) Cash and charge sales include amounts received from customers on outbound FTD orders.

You are required to:

(*a*) Prepare a worksheet showing adjustments to the income statement to reflect the results of Bloom's operation for the past fiscal year on the cash basis.

(*b*) Give explanations for each adjustment, showing calculations where appropriate. Key the explanations to the adjustments in the worksheet.

(*c*) Cite the more important advantages to be gained by Bloom in the installation of a simple set of books, using the facts in the problem as illustrations where possible. You need not specify the books or other records to be maintained. (A.I.A.)

41. On September 1, A purchased from B an electrical appliance business for $84,133 which he operated as the Electrical Appliance Company. The purchase price was allocated as follows: Merchandise $27,833, trucks $5,400, shop equipment $300 and office equipment $600.

Settlement with B was made by the issuance of a 90-day non-interest bearing

note for $16,000 and cash for the balance which was included in the disbursements for September.

A assumed a nine-year rental contract with C for the building occupied by the business at a guaranteed monthly rental of $500, plus 5 per cent of net sales in excess of $10,000.

The transactions for September were as follows:

(1) Installment and other charge sales were $12,750 including 2 per cent state sales tax. Installment sales were $6,310 of this total. Notes were accepted with a face amount of $6,800 and immediately discounted on a recourse basis.

(2) Cash receipts (deposited):

Received on account from customers	$ 2,652
Sales contracts discounted with finance company	6,310
Cash sales, including 2 per cent sales tax	6,120
Collections on discounted contracts	1,475
Bank loan (secured by electrical appliances)	17,190
Invested by A	7,500

(3) Disbursements:

Merchandise	$31,808
Salaries and wages (7 employees)	2,114
Rent	500
Miscellaneous office and general expense	125
Shop supplies	135
Finance company collections	1,175
Insurance	75
Heat, power and water	25
Bank loan	2,190

Other information available about the operations is as follows:

(*a*) Payroll tax of $36 and withholding tax of $250 had been deducted from salaries and wages.

(*b*) Cost of sales for September is estimated to be $11,310.

(*c*) Cash customers were allowed $357 and charge customers' accounts were credited with $643 for merchandise traded in on sales. Of this total, 45 per cent is considered an overallowance. None of the used merchandise has been sold. The state sales tax is applicable to the gross amount of all sales.

(*d*) Depreciation is to be computed at annual rates of 33 1/3 per cent on trucks, 20 per cent on shop equipment and 10 per cent on office equipment.

(*e*) Loss arising from sales on credit is expected to amount to 2 per cent of such sales.

Required:

You are to prepare a formal balance sheet at September 30, and an income statement for the month of September. (A.I.A.)

17 · Standards of Reporting— The Short-Form Report

Throughout the audit examination the independent auditor should be guided by the report he is expected to render at the completion of his examination. Ideally, he should be able to report that his examination was made in accordance with generally accepted auditing standards, and, based on this examination, that in his opinion the client's financial statements present fairly the client's financial position and results of operations in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. The auditor's representations concerning the scope of his examination and his professional opinion may constitute the entire contents of the report which he renders to his client. In that case the report is known as a short-form report, or certificate. If the representations are supplemented by detailed comments analyzing the client's financial position and results of operations or setting forth the major audit procedures followed, the report is usually referred to as a long-form report. The long-form report is discussed in the following chapter.

The short-form report recommended by the American Institute of Accountants was presented in Chapter 1. This recommended form is used almost verbatim in connection with most published financial statements. In other cases the wording is changed somewhat, or the arrangement is reversed, with the opinion preceding the information on scope. Only very rarely does the auditor's report accompanying published financial statements represent a direct departure from the recommended form. Such unanimity has been accomplished solely by voluntary means, and has been a significant factor in achieving national acceptance and understanding of the independent audit services performed by Certified Public Accountants, regardless of

the identity of the individual accountant performing the service. Thus, as stated earlier, the auditor's certificate bears approximately the same relationship to financial statements as the term "sterling" bears to silverware.

Significance of Exact Wording Used in the Certificate

Persons who rely upon audited financial statements should not, however, assume that a two-paragraph statement followed by the auditor's signature is a sure sign that the financial statements are reliable, and may be used without question. The exact wording of the two paragraphs is extremely significant. Either of the paragraphs may contain exceptions which will drastically affect the reliability and usefulness of the financial statements. As a result of limitations placed by the client upon the scope of the auditor's examination, or as the result of conditions which make certain important audit procedures impracticable or unreasonable, the auditor may have to state that his examination was not made in accordance with generally accepted auditing standards. These limitations may make it impossible for the auditor to reach a satisfactory opinion about the statements, and he may thus be forced to qualify his opinion concerning the statements, or perhaps even state that he can express no over-all opinion.

Statements which do not present fairly the client's financial position or results of operations, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year, may similarly necessitate qualification of the opinion expressed by the auditor.

Control by the Client Over the Wording of the Auditor's Certificate

Since his certificate is rendered in an independent capacity, the auditor must retain final authority over the wording of his certificate. At the same time, the client can directly control the wording of the certificate. This paradoxical situation is explained by the fact that if the client wishes to have an unqualified certificate, he must give the auditor free reign in determining the scope of the examination to be made and the form and content of the final financial statements. On the other hand, if the client requests that certain procedures be omitted from the examination, or that the financial statements be presented in a manner which is not satisfactory to the auditor, then the client must be content with a certificate which is qualified as the auditor may deem necessary.

Development of the Form of the Auditor's Certificate

An actual audit report, rendered in 1906 by a national firm of Certified Public Accountants which is still practicing, reads as follows:

> In accordance with your request, we have made an audit of your books and accounts, for the year ended July 31, 1906, and submit herewith two pages of comments, and the following described exhibits and schedules, viz.:
>
> EXHIBIT
>
> "A" GENERAL BALANCE SHEET—JULY 31, 1906—AND 1905—AND COMPARISON
>
> Schedule
>
> #1—Notes Payable—July 31, 1906
>
> "B" SUMMARY OF INCOME AND PROFIT AND LOSS—FOR THE YEARS ENDED JULY 31, 1906 AND 1905—AND COMPARISON
>
> Schedule
>
> #1—Cost of Goods Sold and Expenses
>
> #2—Depreciation Charges Against Income
>
> Yours truly,
>
> (Signed) _____
>
> Certified Public Accountants

The report contains no reference to an opinion or certification of the statements, but the reader is apparently expected to conclude that the financial statements have the full approval of the accountants, since the accountants have made an audit and have included the financial statements in their report on the basis of their audit.

1917. The first attempt at standardization of auditors' reports took place in 1917 when, at the request of the Federal Trade Commission, the American Institute of Accountants prepared "A memorandum on balance sheet audits." This memorandum was forwarded by the Commission to the Federal Reserve Board, which issued the material in a widely used pamphlet entitled *Approved Methods for the Preparation of Balance Sheet Statements.* The suggested form of report included in the pamphlet reads:

> I have audited the accounts of Blank & Co. for the period from ____ to ____ and I certify that the above balance sheet and statement of profit and loss have been made in accordance with the plan suggested and advised by the Federal Reserve Board and in my opinion set forth the financial condition of the firm at ____ and the results of its operations for the period.

Acceptance of the suggested form of report was far from complete, however. Many auditors used a more simplified form, and others used a long-form report in which they listed all the procedures followed. The reader of the long-form report was left to decide whether the procedures followed were adequate, or whether certain important procedures had been omitted.

1934. The first standard form of audit report to receive general acceptance by the profession was suggested by the American Institute of Accountants in 1934, in its pamphlet *Audits of Corporate Accounts.* The form of the report was quite similar in general content and purpose to the report which is widely used today, although it included phrases not presently in use and omitted other phrases which are used in today's report. The wording recommended in 1934 is as follows:

> We have examined the balance sheet of the X Company as of December 31, 1933, and the statement of income and surplus for the year then ended. In connection therewith, we examined or tested accounting records of the company and other supporting evidence and obtained information and explanations from officers and employees of the company; we also made a general review of the accounting methods and of the operating and income accounts for the year but we did not make a detailed audit of the transactions.
>
> In our opinion, based on such examination, the accompanying balance sheet and related statements of income and surplus fairly present, in accordance with accepted principles of accounting consistently maintained by the company during the year under review, its position at December 31, 1933, and the results of its operations for the year.

The reader should note some of the more important changes reflected in the above report, as compared with the 1917 report. One of these is to refer to the auditor's work as an examination of the client's financial statements rather than as an audit of the accounts. Also, a general description of the nature of the auditor's examination is included. In the opinion portion of the report the word "certify" is omitted, but the terms "fairly present," "accepted principles of accounting," and "consistently maintained" make their appearance. The latter terms represent a more direct expression of the auditor's opinion, since the 1917 report merely stated that the statements were made "in accordance with the plan suggested and advised by the Federal Reserve Board." In general, the changes reflect marked growth in the professional stature of the public accounting profession.

1939. In *Extensions of Auditing Procedure,* published by the American Institute of Accountants in 1939 following the McKesson & Rob-

bins disclosures, further changes in the report were made. A phrase was added indicating that the auditor had reviewed the client's system of internal control in the course of his examination, but the phrase "obtained information and explanations from officers and employees of the company" was deleted since it was assumed to be inherent in all auditing procedures that such information and explanations would be obtained. Another addition to the scope paragraph was the indication that the examination was made "by methods and to the extent we deemed appropriate," thus emphasizing the auditor's responsibility for the procedures employed.

The principal change in the opinion paragraph was to add the qualifying term "generally" to the phrase "accepted principles of accounting." In the explanatory material relating to the revised certificate, however, a forthright statement was made concerning exceptions to the auditor's opinion. The pamphlet pointed out that:

> The independent certified public accountant should not express the opinion that financial statements present fairly the position of the company and the results of its operations, in conformity with generally accepted accounting principles, when his exceptions are such as to negative the opinion, or when the examination has been less in scope than he considers necessary. In such circumstances, the independent certified public accountant should limit his report to a statement of his findings and, if appropriate, his reasons for omitting an expression of opinion.

1941. After discussion with the American Institute of Accountants, the Securities and Exchange Commission amended its *Regulation S-X,* effective March 1, 1941. Added to *Regulation S-X* was Rule 2.02 (b), which stated that:

> The accountant's certificate (i) shall contain a reasonably comprehensive statement as to the scope of the audit made including, if with respect to significant items in the financial statements any auditing procedures generally recognized as normal have been omitted, a specific designation of such procedures and of the reasons for their omission; (ii) shall state whether the audit was made in accordance with generally accepted auditing standards applicable in the circumstances; and (iii) shall state whether the audit made omitted any procedure deemed necessary by the accountant under the circumstances of the particular case.

(The wording of this rule has since been changed in the revision of *Regulation S-X,* which became effective December 20, 1950.)

To avoid a "double standard" whereby reports to the S.E.C. might differ from reports issued for other purposes, the Committee on Au-

diting Procedure of the American Institute of Accountants recommended that the standard report be revised to include a statement to the effect that "our examination was made in accordance with generally accepted auditing standards applicable in the circumstances and it included all procedures which we considered necessary." The recommended revised report, set forth in Statement on Auditing Procedure No. 5 issued in February, 1941, was deemed by the S.E.C. to meet the requirements of its new rule.

1942. No changes in the wording of the standard certificate were recommended in 1942, but as a result of experience under the increased audit requirements set forth in *Extensions of Auditing Procedure,* and in view of the new rule of the S.E.C. pertaining to auditors' certificates, Statement on Auditing Procedure No. 12 was issued in May, 1942. The additional disclosure which was recommended concerning the omission of required auditing procedures was largely a reflection of existing practice by most accountants. The concluding paragraph of statement No. 12 reads:

> Accordingly, the committee on auditing procedure hereby recommends that hereafter disclosure be required in the short form of independent accountant's report or opinion in all cases in which the extended procedures regarding inventories and receivables set forth in "Extensions of Auditing Procedure" are not carried out, regardless of whether they are practicable and reasonable, and even though the independent accountant may have satisfied himself by other methods.

1944. A subcommittee of the A.I.A. Committee on Auditing Procedure was appointed in 1943 to consider whether revision of the suggested form of report was necessary or desirable. In reporting in the March, 1944, issue of *The Journal of Accountancy,* the subcommittee stated that it did not appear necessary to propose a new form of report for general adoption since previous forms were not mandatory and could be modified as desired so long as the substance of the report was not changed. The subcommittee noted, however, that the reports issued by some firms omitted reference to the review of the system of internal control and to the fact that the examination did not include a detailed audit.

1947. After extensive study of the relatively new idea of auditing standards which stemmed from the 1941 rule of the S.E.C., the Committee on Auditing Procedure issued in 1947 the report *Tentative Statement of Auditing Standards—Their Generally Accepted Significance and Scope.* With the further understanding of auditing standards it became evident that auditing *standards* were universal and

did not vary with the circumstances, whereas auditing *procedures* should be varied according to the circumstances. Accordingly, the recommendation was made that the new phraseology recommended in 1941 be changed to read, "Our examination was made in accordance with generally accepted auditing standards and included all procedures which we considered necessary in the circumstances."

1948. The general membership of the American Institute of Accountants adopted in 1948 the summary of auditing standards presented in the 1947 report on auditing standards. Since this action gave official status to the meaning of the term "generally accepted auditing standards," the Committee on Auditing Procedure concluded that further modification of the recommended form of the certificate was in order. The committee recommended that reference was no longer needed to the fact that the examination included a review of the system of internal control and did not include a detailed audit of the transactions, since these points were specifically made a part of generally accepted auditing standards. Standard No. 2 under the heading "Standards of Field Work" of the approved summary of auditing standards states, "There is to be a proper study and evaluation of the existing internal control as a basis for reliance thereon and for the determination of the resultant extent of the tests to which auditing procedures are to be restricted."

The committee did, however, suggest a modification of the wording of the final sentence of the scope paragraph which included an implication that no detailed audit had been made. The revised sentence read, "Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances."

No further changes have been recommended in the form of the standard certificate since 1948. In its present form the standard certificate corresponds with the example presented in Chapter 1 of this book.

1949. The last major action by the American Institute of Accountants which related to accountants' reports on financial statements occurred in 1949. The action was originally proposed in December, 1947, in Statement on Auditing Procedure No. 23, entitled *Clarification of Accountant's Report When Opinion Is Omitted.* The Committee on Auditing Procedure recommended that the proposal be referred to the membership of the Institute for adoption, but there was considerable misunderstanding of the objectives and the application in practice of the proposal, and the membership did not adopt statement No. 23 as originally presented. After further study by the

committee and an active effort to inform the profession as to the purpose and intent of the committee's actions, statement No. 23 was revised in May, 1949, and adopted by the Institute membership at its annual meeting in November, 1949.

Two significant points were involved. The first related to the fairly common practice of issuing clients' financial statements on the accountant's stationery, or within covers bearing the name of the accountant, but with no representation by the accountant as to the fairness of the statements, or possibly with only a nondefinitive notation that the statements were "for management purposes only." The second point related to situations in which the auditor's comments accompanying a client's financial statements indicated that an examination had been made, but where there was no expression of opinion concerning the statements and no specific disclaimer of an opinion.

Since the auditor has no control over the use of financial statements accompanied by his name, both of the above practices tended to cause misunderstanding or misinterpretation on the part of third parties to whom the statements were shown. With no firsthand knowledge concerning the auditor's work, such third parties were often unclear concerning the responsibility assumed by the auditor for the representations in the financial statements. To avoid such difficulties and to recognize more adequately the responsibility of the accounting profession to third parties, the committee recommended and the Institute adopted the recommendation that

> . . . whenever financial statements appear on the stationery or in a report of an independent certified public accountant, there should be a clear-cut indication of the character of the examination, if any, made by the accountant in relation to the statements, and either an expression of opinion regarding the statements, taken as a whole, or an assertion to the effect that such an opinion cannot be expressed. When the accountant is unable to express an over-all opinion, the reasons therefor should be stated. When the accountant considers it appropriate to comment further regarding compliance of the statements with generally accepted accounting principles in respects other than those which require the denial of an over-all opinion, he should be careful to indicate closely the limitations of such comments.

The reason for the committee's request that its recommendations be approved by the membership of the Institute related to a provision of *Extensions of Auditing Procedure* approved by the membership in 1939. As noted previously, that document stated that there should be no expression of opinion by the auditor if his exceptions

were such as to negative an opinion or if his examination were less in scope than he considered necessary. The new action, taken ten years later, required that the auditor's representations in such situations be clarified by an unequivocal assertion by the auditor that he was not in a position to express an over-all opinion concerning the financial statements.

SHORT-FORM REPORT STANDARDS

The purpose of this section is to explore and elaborate upon the use of the short-form report and its adaptation and modification to conform with generally accepted standards of reporting under varying circumstances.

General Requirements

The following points, many of which have been discussed previously, are enumerated below to indicate the standards which apply in the normal situation when the recommended form of report can be used without modification. The responsibilities which are involved in rendering an unqualified auditor's short-form report are also stated.

1. The report should be dated. The dating establishes the termination of the auditor's responsibility for disclosing events occurring subsequent to the balance sheet date which are essential to a proper interpretation of the financial statements covered by the auditor's report. In the case of registration statements filed with the Securities and Exchange Commission, the responsibility for disclosure extends to the effective date of the registration statements.
2. The report should be addressed to the client. When the client is a corporation the report should be addressed to the stockholders or to the board of directors.
3. The report should disclose the exact name of the client, which in the case of a corporation would be the name specified in the corporate charter, including any abbreviations, such as "&," "Co.," "Corp.," or "Inc." In addition, it is desirable to disclose the nature of the business entity to which the financial statements pertain. This disclosure can be made parenthetically, subsequent to the name of the business given in the opening sentence of the report, as for instance:

The Wheat State Produce Co. (a Kansas Corporation), or
Sigel & Co. (a partnership)

4. The report should identify each statement (balance sheet, income statement, statement of retained earnings) to which the report pertains and the exact date of the statement or the period covered by the statement.

5. The report should indicate that the auditor's examination was made in accordance with generally accepted auditing standards.

6. The report should state that in the auditor's opinion the financial statements present fairly the financial position of the business and the results of operations in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

7. The financial statements are the representations of the management of the business concern. The primary responsibility of management for the financial statements and the disclosures made therein precludes the auditor from changing or modifying the statements without the consent of management.

8. The financial statements must be fully self-explanatory through the use of captions, classification of items, and descriptive information. If necessary, additional disclosure may be made through footnotes, which are considered to be part of the statements.

9. The auditor's report should bear the manual signature of the auditor.

10. The statements and the auditor's report should be bound in such a fashion that the statements and report cannot be separated and used individually without mutilating the paper on which they are presented.

For the purpose of this discussion, as well as in the actual conduct of independent audit examinations, items 5 and 6 in the above listing are of prime importance. The auditor's representations as to the scope of his examination and his expression of opinion concerning the client's financial statements represent the core of the entire matter. When the short-form report is rendered in the recommended form and without any manner of qualification pertaining to the scope of the auditor's examination or the opinion he has reached, the report reflects the ideal situation. Deviations from the ideal situation and the effect of those deviations upon the short-form report under acceptable standards of reporting constitute the subject matter of the remainder of the chapter.

Modifications of the Standard Report

If the client requests that certain required auditing procedures be omitted, if the client's financial statements are unacceptable to the

auditor and the client refuses to change the statements, or if certain required auditing procedures cannot be applied for reasons beyond the control of the client or the auditor, the form and content of the auditor's certificate must be modified accordingly. The modification may involve an exception to the assertion that the examination was made in accordance with generally accepted auditing standards, a qualification of the auditor's opinion concerning the financial statements, or a combination of both of these modifications. In other cases, the qualifications of the auditor's opinion may be so significant as to make an expression of opinion meaningless, or even misleading. Under those circumstances the auditor should clearly state that he is unable to express an opinion concerning the statements as a whole, and if appropriate he should give his reasons for this denial of an opinion. The auditor may, however, go on to indicate the scope of the examination which he made and give a "piecemeal" opinion with respect to those specific items in the financial statements on which he is in a position to express an opinion. As discussed more fully at a later point, however, the piecemeal opinion must be carefully worded so as to avoid giving the reader the impression that the auditor is actually expressing an opinion on the statements as a whole.

Effect of Limitations in Scope of Auditor's Examination

Restrictions placed on the scope of the auditor's examination either by the client or by circumstances not under the control of the client will affect the scope paragraph of the auditor's report, and in some cases will also affect the opinion paragraph—possibly even necessitating a denial of opinion. Only significant restrictions will affect the report, however. For instance, a client may rent space in another city and maintain a sales office there. The only assets maintained at the sales office are office equipment and a petty cash fund; shipments are made from the main plant, all sales and receivables records are maintained at the home office, and all salaries and expenses other than petty cash items are paid from the home office. It would certainly not be reasonable to expect the auditor to visit the sales office in order to count the petty cash fund and establish the physical existence of the equipment in the office in view of the insignificance of the items involved in relation to the over-all financial position and operating results. For the same reason, there would be no need for the auditor to take any exception in his report to the statement that his examination was made in accordance with generally accepted auditing standards, and included all procedures which he considered necessary *in*

the circumstances. It is thus conceivable that the auditor *might* have insisted on counting the petty cash fund had the fund been located at the main office, even though he would not insist on doing so under the circumstances described.

Disclosure of Deviation from Normal Auditing Procedures; No Effect on Representations As to Scope or Opinion. By increasing the significance of the branch office operation set forth in the preceding illustration, a point is reached at which the auditor's report will be affected if normal auditing procedures are not followed in examining the branch operations. The exact point at which such a change would occur is difficult to determine. In each situation the auditor would have to evaluate all the pertinent facts and arrive at a decision based on his experienced judgment.

To illustrate the factors which would influence such a decision and to suggest a possible point of reference, a series of assumptions has been supplied concerning a branch operation. The assumptions are then evaluated, and a point is suggested at which the significance of the branch operation, considering the attendant circumstances, would probably affect the auditor's certificate in the absence of adequate verification of the branch figures.

1. The client requests that the auditor not visit the branch office to carry out the normal auditing procedures, since travel costs and other out-of-pocket expenses charged to the client would be excessive.
2. The branch represents a completely decentralized operation, with inventories stored at the company's local warehouse and all records pertaining to sales, receivables, and cash collections and disbursements maintained at the branch.
3. Branch activities relating to warehousing, shipping, billing, receivables, cash, payrolls, and general bookkeeping are all handled by separate individuals who report directly to the branch manager.
4. The home office keeps perpetual inventory records pertaining to inventories held at the branch, based on shipments to the branch from the main warehouse and sales reported by the branch.
5. The branch records are audited yearly by the company's internal auditor, who also observes the taking of the physical inventory at the end of the year and reconciles the quantity figures with the home office records.
6. The independent auditor confirmed the balances of branch bank accounts, and checked out bank reconciliations against bank cut-off statements mailed directly to him.
7. The independent auditor carried out satisfactory confirmation

of branch receivables based on a trial balance of the receivables submitted by the branch.

8. The independent auditor totaled the duplicate sales invoices submitted by the branch for one month and balanced the figure with reported sales for the month. The merchandise withdrawals were traced to the home office perpetual records of branch inventory. Credits to home office inventories for merchandise shipped to the branch for the month were traced to debits to the branch inventory records.

9. The independent auditor tested the internal auditor's working papers covering the reconciliation of physical inventory quantities at the branch with the home office records and made adequate tests of inventory prices and clerical accuracy. Personal property tax assessments and insurance policies were examined in further support of the branch inventories.

10. Branch inventories had shown a reasonable relationship to sales in recent years, based on comparable home office figures, and branch expenses were about the same percentage of sales as for the home office.

11. Company inventories are approximately 40 per cent of current assets and 25 per cent of total assets. Net income has averaged about 10 per cent of total assets.

12. The independent auditor visited the branch in the preceding year and carried out all normal auditing procedures at that time. No substantial errors or differences were noted, and through past experience the independent auditor has formed a favorable opinion concerning the integrity of the management of the company and the accuracy of its accounting records.

13. The principal deficiencies in the independent auditor's examination were the absence of direct contact with accounting records maintained at the branch with respect to sales, receivables, and expenses, and with the physical inventory. However, in view of the internal check and the other procedures applied by the auditor, he was satisfied that the branch figures were fairly stated, with the possible exception of inventory quantities.

Based on the above assumptions, it is the opinion of the author that if branch inventories and other figures did not exceed more than about 10 per cent of the figures for the company as a whole, no disclosure would be necessary in the auditor's report that he did not visit the branch to carry out the customary auditing procedures. This conclusion is based on the fact that the branch figures would not under these circumstances be a significant proportion of total company figures, and the fact that the procedures which the auditor was

able to apply to the branch figures would give the auditor considerable basis for believing that the branch figures were fairly stated. In view of these considerations, no useful purpose would appear to be served by commenting on the situation in the auditor's report.

As the proportion of the total company figures represented by branch inventories and operations is increased, the mounting significance of the branch figures would necessitate that the auditor disclose the fact that he had not visited the branch, even though he had satisfied himself by other means that the branch figures were fairly stated. However, since under these circumstances any existing misstatement of the branch figures would still tend to be sufficiently limited so as not to have a material effect on the client's financial position and results of operations, no actual qualification would be necessary in either the scope or opinion paragraph of the auditor's certificate. Disclosure requirements under acceptable standards of reporting would appear to be adequately met by adding the following statement at the close of the scope paragraph:

> . . . In view of the expense which would have been involved, the management asked that we not visit the company's branch office and warehouse located at Portland, Oregon, to carry out our normal auditing procedures, but we were able to satisfy ourselves by other means with respect to the accounting figures pertaining to the branch.

Deviation from Normal Auditing Procedures Necessitating Qualification of Scope and Opinion. Mere disclosure of the omission of generally required auditing procedures would be adequate until the branch figures would begin to approach 25 per cent of the total company figures. As that point would be neared, the materiality of the figures in question would suggest the need for more than simple disclosure, even though the auditor were reasonably satisfied that the figures were fairly stated. The alternative procedures with respect to inventories would not constitute the full equivalent of the procedures which would normally be applied, and a possible misstatement of the branch inventory figures could have a significant effect on over-all financial position and results of operations.

For instance, an effort by management in collusion with the internal auditor to overstate inventories at the branch might easily result in an overstatement of as much as, say, 20 per cent. It is doubtful whether the procedures applied by the independent auditor would be adequate to uncover such an overstatement, and yet, based on the eleventh assumption stated earlier, a 20 per cent overstatement of the branch inventory when those inventories were, say, 30 per cent of total inventories would produce the following results:

Overstate total inventories	6.0%
Overstate current assets	2.4
Overstate total assets	1.5
Overstate net income	15.0

In view of such a possibility the auditor could hardly discharge his responsibility by merely disclosing the fact that he had not carried out observation of the physical inventory taking at the branch. Rather, he should qualify the assertion that his examination was made in accordance with generally accepted auditing standards. In turn, such a qualification would mean that he was unable to satisfy himself as to the over-all fairness of the inventory figure, and he should thereby qualify his opinion as to that figure. In the area involving branch inventories beginning at about 25 per cent of total inventories and approaching as much as about 40 per cent of total inventories, the following modifications of the standard report should meet acceptable standards of reporting and disclosure:

> . . . Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances, except as stated in the following paragraph.
>
> In view of the expense which would have been involved, the management asked that we not visit the company's branch office and warehouse located at Portland, Oregon, to carry out our normal auditing procedures. The branch physical inventory-taking process was observed by the company's internal auditor, and he reported that the work was properly handled in accordance with instructions which we had approved. We reconciled the physical inventory figures obtained by the internal auditor with perpetual inventory records maintained at the home office. Although these procedures indicated that inventory quantities stored at the Portland branch have been correctly reported, the procedures were not adequate in relation to generally accepted auditing standards, and we were unable to fully satisfy ourselves with respect to the inventory quantities stored at Portland, representing about 30 per cent of total inventories. As to all other figures pertaining to the Portland branch, we were able to satisfy ourselves by the application of either normal or alternative auditing procedures that those figures were fairly stated.
>
> In our opinion, subject to the limitation of the scope of our examination in connection with inventories held at the Portland, Oregon, branch as set forth in the preceding paragraph, the accompanying balance sheet and statements of operations and retained income present fairly. . . .

The above report is obviously not entirely satisfactory from the reader's point of view since it transfers some of the responsibility to him for deciding exactly how much reliance can be placed on the financial statements. At the same time, however, the reader knows that only about 30 per cent of the inventories relate to the branch, and he knows that the auditor is satisfied as to the general accuracy of the branch figures other than inventory which are included in the company totals.

In most instances the auditor should try to avoid a qualified opinion, giving either an unqualified opinion, if warranted by his conclusions based on the application of alternative procedures, or else denying an over-all opinion on the financial statements. A qualified opinion should preferably be given only if the limitations on the scope of the auditor's examination are the result of unalterable circumstances, and the alternative procedures which were practicable and reasonable did not give the auditor an adequate basis for an unqualified opinion.

Limitation of Scope of Examination Necessitating Denial of Over-all Opinion. Continuing with the same set of assumptions concerning the branch, when branch inventories begin to exceed as much as 40 per cent of total inventories a significant misstatement in the branch inventory figure could distort the company's financial position and results of operations so seriously as to make the over-all picture presented by the financial statements completely meaningless. Under such circumstances a qualified opinion would quite likely mislead an outsider into placing more reliance on the financial statements than would be warranted, and the auditor should therefore protect both himself and third parties by stating in his report that he is unable to express an over-all opinion concerning the financial statements. To accomplish this objective, the report could be worded as follows:

> . . . Our examination of the home office records was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.
>
> At the request of management, made in view of the expense which would have been involved, we did not visit the company's branch office and warehouse located at Portland, Oregon. We were thus precluded from applying auditing procedures which we considered necessary in the circumstances with respect to inventories and other figures pertaining to the branch and included in the company's financial statements.

> Although we applied certain alternative auditing procedures with respect to figures pertaining to the branch, we were unable to satisfy ourselves generally concerning those figures. In view of the materiality of branch operations with respect to the financial position and results of operations of the company as a whole, we are unable to express an opinion as to the fairness of the accompanying balance sheet of X Company as of December 31, 1955, and of the statements of operations and retained income for the year then ended.

Denial of Over-all Opinion Accompanied by Piecemeal Opinion. The preceding denial of opinion perhaps seems unduly harsh in view of the substantial amount of work performed by the auditor and the information gained thereby. If it is assumed that the auditor could satisfy himself by means of satisfactory auditing procedures with respect to all branch figures except inventories, a piecemeal opinion might be given. There would still be a denial of opinion concerning the statements as a whole in view of the materiality of the branch inventory figure, but the auditor could then go on to express an opinion concerning the various figures in the statements except for inventories, cost of sales, and net income.

The scope paragraph of the report would be modified to conform with the revised assumption, and the opinion paragraph could then read somewhat as follows:

> Owing to the limited scope of our examination with respect to inventories stored at the Portland, Oregon, branch warehouse, we are unable to express an opinion concerning the accompanying financial statements as a whole. In our opinion, the financial statements do, however, present fairly the assets (except inventories of $1,923,416.51, located at the Portland warehouse), liabilities, and stockholders' equity (except for the effect of any possible misstatement of income for the year) of X Company at December 31, 1955, and the revenues, costs (except as those costs would be affected by a misstatement of inventories at the Portland warehouse), and expenses for the year then ended in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Such piecemeal opinions must be worded with extreme care to avoid giving the reader the impression that the auditor is actually giving an opinion on the statements as a whole in spite of his earlier denial of such an opinion.

General Comments Concerning Preceding Illustrations. The use of specific percentages for illustrative purposes in the preceding examples should not lead the reader to mistakenly believe that judg-

ment concerning auditing matters can be rendered with such preciseness. Some dividing line had to be established for illustrative purposes, and although the percentages used are believed to be reasonable in the light of the stated assumptions, other individuals might select other percentages. The percentages would, however, be unlikely to vary substantially from those supplied herein.

Furthermore, the reader should not assume that the percentages given would apply to any audit situation involving a branch which is not visited. Actually, a change in any one of the thirteen assumptions stated at the beginning of the illustration would change the points at which the various modifications of the report should become effective.

The illustration used was somewhat extreme, particularly as the significance of the branch operations was increased, but all factors other than the relative size of the branch were purposely held constant to make possible an integrated series illustrating the causal factors necessitating modification of the auditor's report. As a practical matter, a large branch would probably be visited by either the auditor himself, or by a representative of his firm from another office located closer to the branch who would perform any auditing work in accordance with the instructions issued by the auditor in charge of the engagement at the client's home office. Such conditions are commonplace and indicate the reason for the growth of national public accounting firms with offices in all the principal cities of the United States and often with offices in many foreign countries as well.

Engagement of Another Accountant. When a branch audit situation is faced by a local accounting firm and the travel cost to the branch would be excessive, a common solution is for the firm to engage an accounting firm located near the branch to perform the work. Rule 6 of the rules of professional conduct permits a member of the American Institute of Accountants to engage another accountant to conduct part of an examination provided the other accountant is ". . . a member of the Institute, a member of a similar association in a foreign country, or a certified public accountant of a state or territory of the United States or the District of Columbia."

In engaging another accountant or accounting firm to handle part of an audit engagement, it is assumed that the accountant or firm is fully responsible to the accountant who initiated the arrangement. The initiating accountant is thus able to specify the verification work to be performed, and should in turn be able to assume full responsibility for the reasonableness of the audited figures as reported by the other accountant. Under these circumstances no disclosure of the

situation or arrangements would be required in the audit report, provided the amounts audited by the other accountant do not overshadow those audited by the certifying accountant.

Branch Audited by Independent Accountant Engaged by the Client. In many cases the client, rather than the certifying accountant, will engage the accountant who is to examine and report on the figures for a branch operation or a subsidiary company. Such an arrangement changes the position of the certifying accountant slightly. If the certifying accountant is satisfied that the other accountant is of recognized standing in the profession, and is also satisfied that the scope of the other accountant's examination was adequate, then the report of the other accountant may be accepted on approximately the same basis as if he had been engaged by the certifying accountant. That is, no disclosure of the situation would be necessary in the report on the statements which included the branch or subsidiary figures. The materiality of the amounts involved would be a factor, however. In general, the materiality of the figures accepted by the certifying accountant without disclosure under such an arrangement should be less than when the other accountants were engaged and directed by the certifying accountant.

If the figures examined by another accountant engaged by the client are of such significance that the certifying accountant feels that disclosure is required, or if for any reason the certifying accountant is unwilling to accept the report of the other accountant on the same basis as if he, himself, had made the examination, then the certifying accountant's report should be modified accordingly. The following illustration suggests a possible method of disclosure:

> . . . Our examination, which did not include the company's branch located at Portland, Oregon, was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.
>
> The accounts of the Portland branch, which have been examined by other independent public accountants, have been incorporated in the accompanying financial statements on the basis of the amounts shown in the report of those accountants. Net assets of the branch at December 31, 1955, amounted to $865,439.21, or 21 per cent of total net assets, and net income of the branch for the year amounted to $142,631.85, or 26 per cent of total net income.
>
> In our opinion (which in the case of the Portland branch is based on the report of other accountants) the accompanying financial statements present fairly. . . .

Opinion Qualified for Reasons Other Than Scope of Examination

The auditor's opinion may also be qualified if the financial statements do not permit the auditor to make the customary representations that the financial statements present the client's financial position and results of operations—

1. Fairly.
2. In accordance with generally accepted accounting principles.
3. On the basis of the consistent application of the accounting principles as compared with the preceding year.

As with most auditing matters, materiality is a factor in determining whether the auditor should qualify his opinion. Certainly no qualification would be necessary merely because the auditor found $1,500 worth of obsolete inventory items in an inventory of a million dollars; because the client, following past practice, made no accrual adjustment for utilities consumed during the final month of the fiscal year; or because an item of nonrecurring income amounting to $10,000 was included in arriving at net income for the year of $500,000. Conversely, of course, exceptions could be so significant that they would negate any over-all expression of opinion on the financial statements, and the auditor would thus be required to deny any opinion as to the fairness of the financial statements as a whole.

Fairness. For instance, a company may have realized excessive profits on contracts with the armed forces, with such contracts representing the bulk of its business for the year. The income as determined by the company would be subject to renegotiation, and conceivably profits might be so high that the Renegotiation Board might recapture over half of the reported profits. If the auditor, relying on past experience and his knowledge of renegotiation proceedings, concluded that renegotiation would be likely to have such an effect he would want the statements to reflect a liability and reduction of net income for the amount estimated to be recaptured through renegotiation. If the client refused to make the requested provision for renegotiation, the statements as a whole would be misleading in view of the substantial understatement of liabilities and overstatement of retained earnings and net income. In such circumstances the significance of the auditor's qualification would negate any over-all opinion, and an over-all opinion should be denied, although a piecemeal opinion could be given covering the items which were fairly stated in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

It is interesting to note that disclosure of the estimated renegotiation amount could be made in several ways, but they would not be equally satisfactory. When such a material amount is involved, disclosure by footnote to the statements, even with the estimated amount stated, would not be adequate. Such a treatment would be misleading because the statement figures would have an appearance of validity which would be unwarranted in view of the content of the footnote.

Consistent Application of Generally Accepted Accounting Principles. When the client has made a material change in the basis of applying generally accepted accounting principles the auditor's opinion will be affected accordingly. In addition, it is usually desirable to indicate the effect of the change on the financial statements and to state whether the auditor approves of the change. For instance, a client might change from the cost basis for figuring depreciation to a basis related to replacement value. In such a situation the auditor would qualify his opinion both as to consistency and as to the acceptability of the new method. The following excerpts from the auditor's report on the financial statements of United States Steel Corporation for the year ended December 31, 1947, present an interesting combination of exceptions both as to accounting principles and consistency. The paragraphs quoted below follow the scope paragraph.

> The corporation extended the application of the last-in, first-out method of inventory valuation which it adopted in 1941-42 to certain other subsidiaries and to other inventory items as at January 1, 1947. As a result of this extension of such principle, inventories as at December 31, 1947, affected thereby are approximately $10,000,000 less, and income for the year 1947 is $6,000,000 less, than they would have been under the average cost method previously followed with respect to these particular inventories.
>
> During the year 1947, in partial recognition of the increased replacement cost of long-term facilities which are being worn out or exhausted in production, the corporation has included in costs additional depreciation of $26,300,000 (as indicated in the notes to the accounts) in excess of the amount determined in accordance with the generally accepted accounting principle heretofore followed of making provision for depreciation on the original cost of facilities.
>
> In our opinion, except as set forth in the preceding paragraph, the accompanying consolidated statement of financial position and related statement of income, together with the notes thereto, present fairly the position of United States Steel Corporation and its subsidiaries at December 31, 1947, and the results of the year's operations in conformity with generally accepted accounting principles. Except

as indicated in the two preceding paragraphs, the accounting principles were applied during the year on a basis consistent with that of the preceding year.

The report is not entirely clear as to why the $10,000,000 decrease in inventories reduced net income by only $6,000,000, but the answer apparently lies in a decrease of $4,000,000 in income taxes resulting from the decreased income.

In some cases the effect of the change in method is referred to in a footnote to the financial statements, or in the president's letter accompanying statements presented in a printed annual report. For instance, the auditor's report on the 1951 financial statements of Harbison-Walker Refractories Company stated that the financial statements presented fairly the financial position and results of operations ". . . in conformity with generally accepted accounting principles which, except for the change (which we approve) in the method of determining cost for certain inventories as explained in the accompanying President's Message to shareholders, were applied on a basis consistent with that of the preceding year."

The President's message included the following paragraph:

> In 1951 the Company adopted the Last-In, First-Out (LIFO) method of determining the cost of its inventories of refractory brick, both finished and in process. At December 31, 1951 these classes of inventories were carried at $5,829,135, and the remaining classes were carried at average cost which was the method used in valuing all classes of inventory at December 31, 1950. The aggregate inventories at each date were below replacement cost. The adoption of the LIFO method in 1951 resulted in a decrease of approximately $1,000,000 in the carrying value of inventories at December 31, 1951, and, accordingly, net income reported for the year 1951 was decreased about $200,000 and provisions for taxes on income were decreased approximately $800,000.

If the Lifo inventory basis were adopted in a year in which prices of raw materials remained fairly constant the effect of the change on net income would be negligible. Nevertheless, the auditor should probably qualify his opinion in view of the possible material effects which might result from the change in future years. Such disclosure might come under the heading of the auditor's general responsibility to investors, since there would be no other way in which investors would become aware of the change, unless the financial statements disclosed the basis of determining inventory costs as recommended in Chapter 8. Such disclosure is not, however, presently required under generally accepted accounting principles.

Disclaimers of Opinion

These comments concerning disclaimers, or denials, of opinion are presented because there are numerous situations in which denials should be made, and full recognition of the situations and the proper action to be taken is essential to the well-being of the public accounting profession. Failure to make a clear-cut denial when such a denial is required causes statement users to be misled in relying upon financial statements which do not warrant such reliance. The possible result of such occurrences could be to destroy public confidence in the expression of independent opinions on financial statements. Such a loss of public confidence would be a serious blow inasmuch as the giving of such opinions is the greatest single factor in the existence of the public accounting profession.

The fact that it is only in recent years that the profession has courageously assumed its full responsibilities in connection with the expression of opinions on financial statements indicates that even though the profession is young and still developing, it is nevertheless fully cognizant of its responsibility to the public. As noted earlier, principal advances occurred in 1939 when the American Institute of Accountants stated that there should be no expression of opinion when qualifications of the opinion would have the effect of negating any opinion, and in 1949 when the Institute agreed that the accountant should specifically deny any opinion in cases where an opinion could not be given.

Recent Experience Concerning Denials of Opinion. In 1954 the Committee on Auditing Procedure of the American Institute of Accountants reported* on a survey covering over 7,000 audit reports filed with approximately three hundred banks. The Committee interpreted the results of the survey as indicating that good progress had been made toward acceptance by the profession of the 1949 requirement that the accountant specifically deny an opinion when unable to give one. The survey showed the following breakdown of the reports analyzed:

Unqualified opinion	48%
Qualified opinion	21
Over-all opinion disclaimed	11
No opinion and no disclaimer	20

Although these figures may indicate good progress, they certainly indicate the need for considerably more progress, and the Institute can be expected to actively press the matter of further professional education. Bankers also should be included in any such educational

* *The Journal of Accountancy*, August, 1954, pp. 185-188.

activities, since no banker who fully understands audit reports should be willing to accept a report which does not clearly state the responsibility assumed by the auditor rendering the report. It is doubtful, too, whether there are many instances when the banker should be willing to accept financial statements accompanied by a denial of opinion except in the case of interim statements.

The survey also indicated a need for fuller understanding of auditing standards by the profession in one other respect. The survey showed that accounts receivable and inventories were usually material items. Receivables were 15 per cent or more of current assets in 82 per cent of all cases, and inventories were 15 per cent or more of current assets in 84 per cent of all cases. Yet, in spite of such materiality, the survey showed that unqualified opinions were rendered without confirmation of receivables, or without observation of inventories, as follows:

	Receivables	*Inventories*
Not satisfied by other procedures	1%	2%
No indication of whether satisfied by other procedures	3	4

Qualified opinions were rendered in certain other cases when receivables were not confirmed or inventories not observed, as shown below:

	Receivables	*Inventories*
Not satisfied by other procedures	3%	4%
No indication of whether satisfied by other procedures	4	5

In view of the usual materiality of receivables and inventories, it is quite possible that most of the reports represented by the above tabulations should have shown a denial of opinion rather than either a qualified or unqualified opinion.

Typical Situations Necessitating Denial of Opinion. The auditor's denial of opinion may stem from either of two possible sources. He may not have satisfied himself as to material amounts included in the financial statements, or the financial statements may be unacceptable to him. Any of the following reasons might be involved:

1. The statements may have been prepared from the books without audit, as when they are presented for management purposes only in connection with a general bookkeeping service rendered to the client. Such statements, if presented in connection with the accountant's name, should carry a prominent notation, such as "Prepared from the books without audit."

2. The statements may have been prepared in conjunction with a partial examination of current transactions, with the intent that ad-

ditional procedures applied at the end of the year would permit expression of an opinion on the annual statements. Such interim examinations are essentially a supplement to internal control, and while of great benefit to management, they would hardly warrant even a piecemeal opinion on the statements prepared in conjunction with the examination. Banks often request such statements, however, in spite of the denial of opinion, since the statements give a current picture of the borrower's affairs.

3. Circumstances may not permit the application of required procedures in the verification of material items. Occasionally alternative procedures can be applied, or a qualified opinion may be given, but ordinarily a denial of opinion on the statements as a whole will be required. Typical situations would include a first engagement, when obviously the auditor would be unable to observe the taking of the opening inventory. In some cases, however, the inventory records will be such that the auditor can satisfy himself concerning the inventory by careful review and tests of the records. Inadequate records which give the auditor no opportunity to satisfy himself on the opening inventory would necessitate a denial of opinion on the income statement if inventories were a material item, but would not affect his opinion on the balance sheet. Other situations in which circumstances would necessitate the omission of important procedures would include the engagement of the auditor after the year-end physical inventory had been taken and the conduct of an initial examination when past records of plant assets and retained earnings had been destroyed.

4. When internal control is wholly inadequate, as will usually be true of very small businesses, it may be impracticable to compensate for the deficiency by expansion of the scope of the audit examination, and the auditor would thus be required to state a denial of any overall opinion, although a piecemeal opinion might be given.

5. Quite frequently the client will request that certain required audit procedures not be applied. The procedures most commonly involved are confirmation of receivables, observation of physical inventory taking, and examination of records of a branch located at a distant point. The reasons given for the request may be the cost of the additional work, the fact that the examination is made primarily for the owner (and he is satisfied that the figures are stated correctly), or a combination of both reasons. Occasionally the figures involved may not be material or the auditor may be able to satisfy himself by other means, thus permitting the expression of a qualified opinion, or possibly even an unqualified opinion. Usually, however, a denial of opinion will be necessary.

6. The form or content of the client's statements may occasionally necessitate denial of any opinion, but usually a qualified opinion can be given, or the client may consent to change the statements to make them acceptable. An example of a case likely to require denial of any opinion would be a manufacturing concern in which plant assets and depreciation represented a major factor in production and production costs, and

(*a*) The amount of depreciation provided was grossly over- or understated, or

(*b*) The amount of depreciation was provided according to a plan not in accordance with generally accepted accounting principles, and resulted in depreciation amounts which differed materially from amounts computed in accordance with orthodox methods, or

(*c*) A change in the method of computing depreciation resulted in a figure substantially different from that of the preceding year.

A denial of opinion, as opposed to a qualified opinion, would probably be required in view of the pervasive effect of the depreciation figure. In addition to the various subtotals and totals on the statements which would be affected, specific amounts affected would include accumulated depreciation, depreciation expense, cost of sales, income taxes, net income, inventories, and retained earnings. Under these conditions even a piecemeal opinion would probably be out of the question.

Use of Audited Statements by Banks and Other Credit Grantors

In the survey figures quoted earlier, it was noted that only 48 per cent of 7,000 audit reports received by three hundred banks contained unqualified opinions. Of the remaining 52 per cent of the reports, a few undoubtedly represented reports rendered on an interim basis. Others might have been year-end reports rendered under conditions necessitating something less than an unqualified opinion, when such conditions were beyond the control of the client or the auditor. The remainder of this group of reports presumably resulted from limitations placed on the scope of the examination by the client. It is hoped that none of these reports were accepted by the banks simply because they had been prepared by public accountants, and without regard to the limitations of such reports. Yet experience has shown that some bankers, particularly from smaller banks which have less occasion to request financial statements, are likely to accept statements without giving adequate consideration to limitations stated in the

accompanying auditor's report. Both bankers and the accounting profession are engaged in educational efforts to remedy such occurrences.

Apathy is probably the greatest single factor responsible for the majority of the reports presenting something less than an unqualified opinion. Economy-minded businessmen tend to request that costly audit procedures be omitted. Neither auditors nor bankers are in a position to insist that the procedures be followed, although, of course, bankers are in a stronger position in this respect than auditors are. Both groups can, however, take positive steps to acquaint businessmen with the benefits of an audit examination in which the determination of the scope of the examination is left exclusively in the hands of the auditor, who is obviously best qualified to determine what is necessary.

Suggested Wording of Portions of the Auditor's Report to Cover Special Situations

The following material is intended to illustrate the manner in which the auditor's certificate can be modified to meet the requirements of various situations. Both typical and unusual situations are included. The excerpts given are intended only to be suggestive of a satisfactory approach to the problems involved. Regardless of whether the auditor is faced with an entirely new situation, or a situation related to one of the following examples, he should develop his own wording if modification of the certificate is required. His wording must fit the requirements of the situation exactly, since seldom is any given situation completely duplicated in practice. The examples presented below are thus suggestions only, and they should serve primarily to establish a point of departure.

CONFIRMATION OF CERTAIN RECEIVABLES NOT PRACTICABLE

> It was not practicable to obtain confirmation of certain accounts receivable from United States and other government departments or agencies, but we reviewed and tested available records and obtained information from individuals acquainted with the accounts to satisfy ourselves that they were fairly stated.
>
> (Pan American World Airways, Inc.; 1951 report)

* * *

> Except that it was not practicable to confirm by direct communication with the debtors, the current accounts due from hotel guests, as to which we have satisfied ourselves by other auditing procedures, our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the account-

ing records and such other auditing procedures as we considered necessary in the circumstances.

(Knott Hotels Corporation; 1951 report)

DEPARTURE FROM NORMAL INVENTORY VERIFICATION PROCEDURES

Physical inventories of crude oils, finished products and work in process other than those located in independent pipe line transportation systems were taken by E. W. Saybolt and Company and Chas. Martin and Company, independent petroleum inspectors, and the quantities thereof were certified directly to and accepted by us. Quantities in independent pipe line transportation systems were confirmed to us directly. We have tested the clerical accuracy of the inventory records and reviewed the basis of inventory pricing.

(Crown Central Petroleum Corporation; 1951 report)

* * *

Insufficient supporting evidence was available to enable us to satisfy ourselves as to the accuracy of the quantities represented in inventories at the beginning of the year 1955. With this exception our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet presents fairly the financial position of the X Company at December 31, 1955, in conformity with generally accepted accounting principles. We are unable to express an opinion as to whether the accompanying income statement presents fairly the results of operations for the year ended December 31, 1955, in view of our inability to satisfy ourselves that inventories at the beginning of 1955 were fairly stated. Except for the effect of any misstatement of the beginning inventory figure, in our opinion the accompanying income statement presents fairly the revenues, costs, and expenses for the year in conformity with generally accepted accounting principles. Since we did not examine the company's financial statements for the preceding year, we are unable to state whether generally accepted accounting principles have been applied on a basis consistent with that of the preceding year.

Comments Concerning Statements for Previous Year Included with Auditor's Report. If the auditor previously examined the financial statements for the prior year and these statements have been included in the current report for comparative purposes, the auditor may wish to add the following sentence at the conclusion of the scope paragraph: "We made a similar examination of the financial statements for the preceding year." If the statements for the prior year were examined by another independent public accountant, the sentence should be changed to read: "The financial statements for the preceding year were examined by other independent public accountants."

If no previous examination has been made of the statements for the previous year, the auditor might disclaim any responsibility for the statements by making this comment at the conclusion of the opinion paragraph: "Financial statements for the preceding year have not been examined by us and are included only for comparative purposes."

EXCEPTION AS TO APPLICATION OF GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

As stated in Note (1) to the consolidated balance sheet, certain receivables are from debtors having net current asset positions which do not justify classifying such receivables as current. They are, however, included in the balance sheet as current receivables on the basis of the company's opinion that they will be realized within one year. We are not in a position to confirm this opinion. It is not possible to determine the ultimate bad debt losses at this time. Based on our review of the accounts, and on the additional bad debt provisions claimed and proposed to be claimed for Federal income tax purposes for the years 1950 and 1951 stated in Note (3) to the consolidated balance sheet, it is our opinion that generally accepted accounting practice requires substantially larger reserves than those provided for the receivables referred to in Note (1) and for the receivables classified on the balance sheet as noncurrent receivables. If the bad debt provisions claimed for tax purposes were reflected in the accounts, they would affect surplus and 1951 profits by the amounts set forth in Note (4) to the consolidated balance sheet.

In our opinion, except for the effect of the matters mentioned in the preceding paragraph. . . .

INTERNAL CONTROL INADEQUATE TO PERMIT EXPRESSION OF OPINION

The limited number of persons employed by the ABC Company makes it impossible to sufficiently diversify employees' duties to obtain adequate internal control over the recording of transactions. Our examination could not feasibly be expanded to compensate for the lack of internal control, and accordingly we are unable to express an opinion on the financial statements. However, in all other respects our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered practicable in the circumstnces. Our examination disclosed nothing which would cause us to question the data presented in the accompanying financial statements.

The Auditor's Certificate of the Future

The bank survey of auditors' reports suggests that until generally accepted auditing standards are more universally followed by the

profession and more thoroughly understood by persons who rely on audited financial statements, no departure is warranted from the current suggested short form of report. So long as there is no complete certainty as to exactly what an auditor did and what conclusions he reached, the auditor and the person using his report are both better protected by a careful and precise recitation of the facts as in the current scope and opinion paragraphs.

Further growth and development of the public accounting profession should, however, result in almost universal meaning and application for generally accepted auditing standards and generally accepted accounting principles. When this millennium is reached the two-paragraph certificate should be as superfluous as the explanation that sterling silver is silver which meets the standard of 0.925 fineness for manufactured articles. At such a time the certificate may simply read: "We endorse the accompanying (or above) financial statements without qualification." If, then, qualification is necessary, the additional wording will clearly indicate some departure from normal, whereas today an exception in the auditor's report is often not apparent without careful reading of the report.

Under these ideal conditions, two of the present rules of professional conduct of the American Institute of Accountants will become of even greater importance. These rules are:

> *Rule 5.* In expressing an opinion on representations in financial statements which he has examined, a member may be held guilty of an act discreditable to the profession if
>
> (*a*) he fails to disclose a material fact known to him which is not disclosed in the financial statements but disclosure of which is necessary to make the financial statements not misleading; or
>
> (*b*) he fails to report any material misstatement known to him to appear in the financial statement; or
>
> (*c*) he is materially negligent in the conduct of his examination or in making his report thereon; or
>
> (*d*) he fails to acquire sufficient information to warrant expression of an opinion, or his exceptions are sufficiently material to negative the expression of an opinion; or
>
> (*e*) he fails to direct attention to any material departure from generally accepted accounting principles or to disclose any material omission of generally accepted auditing procedure applicable in the circumstances.
>
> *Rule 12.* A member shall not permit his name to be used in conjunction with an estimate of earnings contingent upon future transactions in a manner which may lead to the belief that the member vouches for the accuracy of the forecast.

Review Questions

1. What is the advantage of widespread use of a standard form of auditor's certificate?

2. Does the fact that an auditor's certificate accompanies a set of financial statements mean that the statements can be safely relied upon? Explain.

3. How can an auditor be said to be independent when the client can control the wording of the auditor's certificate?

4. Why was the phrase "obtained information and explanations from officers and employees of the company" deleted from the form of report recommended in 1939?

5. What was the stand taken by the American Institute of Accountants in the pamphlet *Extensions of Auditing Procedure* concerning exceptions to the auditor's opinion?

6. To what extent was the recommended form of the auditor's certificate modified as a result of new rules adopted by the Securities and Exchange Commission?

7. Why did the committee on auditing procedure recommend a change in the phrase "generally accepted auditing standards applicable in the circumstances"?

8. What conditions led to the recommendations made in the report "Clarification of Accountant's Report When Opinion Is Omitted"?

9. The report "Clarification of Accountant's Report When Opinion Is Omitted" recommended that the accountant's report contain a denial of opinion when no opinion could be given. Why did the committee on auditing procedure request that its recommendations be submitted to the membership of the American Institute of Accountants for approval?

10. List the standards relating to the preparation of the short-form report in the standard form, with no exceptions.

11. What basically different modifications of the auditor's report may be required, depending on the circumstances?

12. Define a piecemeal opinion, and state when it would be used.

13. Will limitations on the scope of the auditor's examination affect his opinion? Explain.

14. Would any limitation placed on the scope of the auditor's examination, either by the circumstances in the case or by specific request of the client, necessitate an exception in the scope paragraph of the auditor's report? Explain.

15. What is the danger in giving a piecemeal opinion?

16. When a branch or subsidiary included in the final statements has been audited by another accountant, will it make any difference in the certifying accountant's report whether the other accountant was engaged by the certifying accountant or by the client? Explain.

17. What three representations does the auditor make in the opinion paragraph of an unqualified report?

18. Can a footnote to the financial statements be used to disclose material items which could be reflected in the statements themselves? Explain.

19. Under what circumstances should the auditor render a denial of opinion?

20. If the auditor did not observe the taking of the physical inventory of a

manufacturing concern and applied no alternative procedures, could he properly issue an opinion qualified as to inventories? Explain.

21. Why might the auditor render a denial of opinion after an audit of a small business having extremely weak internal control?

22. Why would the owner of a small business sometimes request that certain required audit procedures be omitted?

Questions on Application of Auditing Standards

23. Discuss the advisability of shortening the auditor's short-form report in accordance with the following suggestions:

(*a*) The report would consist of only the following statement: "In our opinion the accompanying balance sheet and income statement present fairly the financial position of XYZ Corporation at _____, and the results of its operations for the year then ended."

(*b*) The "report" would consist simply of the auditor's signature followed by the letters C.P.A., placed on each statement.

24. Account for the trend away from the detailed recitation of audit procedures which was formerly quite common in the auditor's report.

25. What factors cause the auditor to limit the expression of his findings to an "opinion"?

26. "The independent auditor makes an intensive study of a client's system of internal control in order to be able to state in his report whether or not the system is adequate." Comment on this statement.

27. How does an auditor determine the "generally accepted auditing standards" that he follows in making his examination?

28. If a client's inventories are material, to what extent will the auditor's report be affected if he is unable to substantiate the inventory at the beginning of the year in a first audit?

29. State with reasons whether the following portions of an auditor's certificate would be acceptable in connection with the examination of (a) a department store and (b) a city bus transportation company:

"Our examination was made in accordance with generally accepted auditing standards except that we did not observe the taking of the physical inventory, but in all other respects our examination included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

"In our opinion, except for the fact that we were not able to satisfy ourselves with respect to the inventory at the end of the year, the accompanying balance sheet and statements of operations and retained income present fairly the financial position of Zim Incorporated at December 31, ____, and the results of its operations for the year then ended in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year."

30. Discuss and criticize the following comment included in an auditor's certificate: "We did not verify investments in stocks and bonds by correspondence with the issuers of the securities."

31. In past years your client, the Sinco Oil Company, has capitalized all drilling costs on productive wells, but on January 1 of the current year the company began charging all intangible drilling costs (costs exclusive of recoverable pipe, fittings, and so forth) to expense as they were incurred. What effect will this situation have on your short-form report?

32. You are engaged at the end of a client's fiscal year to make an initial examination of the client's financial statements. The client does not take an annual physical inventory, but makes counts of the various items during the year and at that time makes any adjustment of the inventory records necessitated by the physical count.

(*a*) What effect, if any, will this situation have on the scope paragraph of your report?

(*b*) State in what ways the opinion paragraph might be affected by this situation, and state briefly the considerations which would govern the possible effects on the opinion paragraph.

33. The term "generally accepted auditing standards" which appears in the short-form report relates primarily to judgments and decisions which the auditor must make throughout the audit. Illustrate this point by listing the decisions the auditor would be likely to make in connection with confirmation of accounts receivable.

34. Your client has realized a gain of $1,857 on the sale of a building in the year under examination, and insists that the amount be included in income for the year. Net income for the year before taxes and without including the gain was $6,438. Income for the past six years has averaged $53,241 per year. Would you qualify your certificate? Explain.

35. Under what circumstances would the auditor not have to qualify the opinion paragraph of his report, even though he did not confirm accounts receivable?

36. Your client, the Caveat-Emptor Company, operates a chain of twenty-seven self-service food markets. The stores were formerly all owned by your client, but during the past year the press for additional working capital to finance expanded operations led to sale and lease back of fifteen of the stores on thirty-year leases, at an average annual rental of $6,000 per year.

(*a*) What effect will these transactions have on the balance sheet other than through removal of the appropriate asset and depreciation accounts?

(*b*) Write the portions of your certificate that should be modified if the client refuses to follow your recommendations for part (a) above.

37. One of your regular clients, the Schrolder Manufacturing Company, has changed the pricing of its inventories during the current year from average cost to Lifo costing. Although inventories are a material item in the concern's operations, the change made no material difference in the ending inventory figure or the net income for the year. Would any qualification of your report be necessary? Explain.

Problems

38. A client maintains several branch sales offices throughout the country, where practically all accounts receivable ledgers are kept. Accounts receivable represent a significant proportion of the total assets of the concern. An internal

auditing staff regularly examines the branch-office accounts and circularizes the receivables. All other accounts can be satisfactorily examined at the head office.

The concern is well managed, its accounts in the past have been conservatively stated, and from the work done at the head office there is no reason to question the accuracy and completeness of the reports of the internal auditors. The client proposes that you limit your examination to the head-office records, and rely on the internal auditors' reports as to the accounts receivable maintained at the branches.

Should you agree to abide by the client's request, state in what way you would amend the standard short-form report or certificate, and give reasons for any changes. (A.I.A.)

39. The balance sheet of a corporation contained the following presentation of part of its assets:

Equity in Parker Building (cost)	
Land and building (less reserve for depreciation, $287,517)	$1,329,549
Less: Encumbrance not assumed (4% first mortgage bonds maturing in 1970 with annual payments of $50,000—paid to May 31, 1956)	700,000
	$ 629,549

Assuming the amounts shown were material in relation to the company's total assets and total liabilities, would the method of presentation have any effect on your report if you were engaged to make an examination of the company's financial statements? Explain.

40. A small corporation published a six-months' report which was accompanied by the following accountant's report:

> We have prepared from the books of account of X Company the accompanying statements as of July 31, ——. This interim report is based on amounts taken from the books and records of the company and is subject to year-end verification and adjustment.
>
> Certified Public Accountant

Discuss the above report in the light of the recommendations of Statement on Auditing Procedure No. 23, *Clarification of Accountant's Report When Opinion Is Omitted.*

41. For each of the following situations state whether an opinion should be denied, should be qualified as to consistency or whether disclosure in the statements or footnotes is the only treament required. If you suggest disclosure or a qualified opinion, give the appropriate wording. In all cases give reasons for your decision.

(*a*) A company which has been using the first-in, first-out method of determining raw material inventory cost changed to the last-in, first-out method. As a result, the ending inventory was valued at $435,000 less than it would have been if the company had continued to state inventory on the first-in, first-out basis.

(*b*) During the year under audit, a company got fully under way its campaign to increase its installment sales business and, as a result, such sales were some one hundred times greater than in the previous year. During

the year, it changed from the sales basis of taking up income to the installment basis. The amount deferred at the end of the year was $162,000.

(c) During its fiscal year a company received a certificate of necessity covering some new plant and equipment to be used to produce a specialized device under government contracts. In its books it provided amortization of the cost over the five-year period estimated to be required to complete the contracts in hand and in prospect, rather than providing depreciation at the usual rates.

(*d*) During the year a company sold its controlling interest in a subsidiary. In the financial statement at the end of the previous year the subsidiary's accounts had been consolidated with those of the parent. (A.I.A.)

42. The following trial balance as of December 31, 1956 was taken from the general ledger of a client, the Y Company:

Cash	$ 175,000	
Accounts receivable	243,000	
Reserve for loss on accounts		$ 8,300
Installment notes receivable	712,200	
Merchandise Inventory 12/31/56	367,500	
Land	450,000	
Building	1,265,500	
Store equipment	750,000	
Reserve for depreciation—Building		410,000
Reserve for depreciation—Store equipment		380,000
Accounts payable		234,100
Notes payable		300,000
Deferred income on sales		94,200
Preferred stock—$5 cumulative, 10,000 shares		1,000,000
Common stock—no-par, 26,500 shares		800,000
Earned surplus		460,000
Sales		1,360,000
Cost of goods sold	902,000	
Selling expenses	104,000	
Administrative expenses	79,500	
Non-operating income		11,500
Interest expense	9,400	
	$5,058,100	$5,058,100

During the course of the audit, the following information was obtained in connection with the above accounts:

1. Included in Installment notes receivable was the unpaid balance of $75,000 on a note from an officer of the company arising from a loan. The note is payable at the rate of $2,500 a month and is secured by the assignment of 1,000 shares of X Company stock which had a market value of 48½ as of December 31, 1956. Installments have been paid when due.

2. The replacement value of the inventory at December 31, 1956 was $310,500.

3. Purchase commitments for future delivery as of December 31, 1956 amounted to $245,000. These commitments could have been replaced at that date for $210,000.

4. During 1956 an increasing amount of sales were made on the installment basis. During the year 1955 such sales were only 30 per cent of total sales, while during the year 1956 installment sales were 52 per cent of total sales. Because of

the increase, the company as of June 30, 1956 started deferring the profit on installment sales made after that date and taking such profit into income in proportion to cash collected. Their procedure was to debit Sales for the amount of profit and credit Deferred Income. As the profit was realized through cash collections, they reversed the entry by a credit to Sales and a debit to Deferred Income.

Required:

As to each of the items numbered 1 through 4, you are to state:

(*a*) Any additional information needed to enable you to decide how the item should be adjusted or reported in the financial statements as of Dec. 31, 1956.

(*b*) Any adjusting entries you would make. If necessary as an explanation of your entries, state any assumption you make as to the additional data referred to in (*a*) above. Omit amounts if these cannot be determined.

(*c*) The exact wording of any exception you would include in your certificate (assume a short-form report), or of any descriptive disclosures, comments or notes which you would make a part of the financial statements. If necessary, state any assumption you make as to the additional data referred to in (*a*) above. (It is suggested that you set up your answer in such a way as to have (*a*), (*b*), and (*c*) together under each number.)

(A.I.A.)

18 · Long-Form Reports

The auditor may have occasion to render many types of reports other than the short-form report, or certificate. These would include reports setting forth the exceptions or errors noted in the course of his examination, recommending changes in the accounting system to increase efficiency or improve internal control, or reporting on the results of any special examination or investigation for which the auditor was engaged. The reports are often presented in letter form, although a formal report may be submitted if the client or the auditor so desires.

If the person who engaged the auditor is both owner and manager of the business which was audited, any special reports should be addressed to him. If the owner is not active in the management of the business, the special reports may be addressed to the owner, the manager, or both, depending on the circumstances. In the case of large corporations such special reports are usually addressed to a top management official rather than to the directors or stockholders, as is usually true of an audit report.

Strictly speaking, none of the above types of reports should be referred to as long-form reports; they are merely special reports. The true long-form report is closely related to the auditor's examination of financial statements and is rendered either in place of the short-form report or as a supplement to it.

Reasons for Preparation of Long-Form Reports

To be of maximum effectiveness a long-form report should be written for a single purpose only, and the contents should then be selected in the light of that purpose. One important reason for the preparation of long-form reports is to supply adequate information to banks or other lending agencies in connection with new or continuing loans.

The other principal reason is to provide owners and management officials with a studied analysis of a company's financial position and results of operations to assist them in directing and managing the affairs of the business.

In many cases, of course, both lending agencies and owners or managers may be satisfied with the auditor's short-form report. Lending agencies are usually willing to accept a short-form report if the borrower is a large concern or has a high credit rating and the loan is well secured. Persons associated with the concern being audited will ordinarily be satisfied with a short-form report if adequate internal reports are available.

A long-form report is likely to be submitted to a lending agency in the case of smaller concerns or marginal credit risks, since the added information will aid in reaching a sound credit decision. The need for additional information will also be the governing factor in submitting long-form reports to owners or managers. Thus smaller businesses are the usual recipients of such reports, since they are seldom in a position to employ an accountant with sufficient training and ability to provide adequate internal reports.

Determining Whether a Long-Form Report Should Be Prepared

As noted in an earlier chapter, the form of report to be prepared is a matter which should preferably be determined at the time that other basic details concerning the audit engagement are settled. The letter to the client confirming the engagement should then set forth all such matters on which an agreement has been reached. In discussing the question of the type of report to be rendered, the auditor should attempt to determine the needs of the client as specifically as possible. He should then be in a position to recommend the type of report which will best meet those needs.

Although the time spent in preparing a long-form report is included in the audit fee, the auditor's recommendation that a long-form report be prepared should neither be intended nor interpreted as a means of selling additional services and earning a higher fee. When the auditor recommends a long-form report he should be convinced that such a report is needed and that the additional expense is fully justified.

Occasionally, the auditor may detect a need for a long-form report after the engagement has begun, even though the client has insisted that only a short-form report is required. In such a situation, if the auditor is firmly convinced that he has judged the problem accurately,

he may proceed to prepare the needed type of report on his own initiative. If the auditor has decided wisely, the value of the report should be readily apparent to the client, and his satisfaction with the report will provide a clue as to whether the auditor should venture to include the cost of preparing the report in his bill for services rendered.

The Auditor's Opinion and Long-Form Reports

Occasionally a long-form report is prepared without an examination of the client's financial statements. In such a case the report should clearly state that the report and statements have been prepared from the books without audit, or some other form of disclaimer of opinion should be given. If the auditor has made a complete examination of the financial statements and no other form of report is rendered, the long-form report should include a statement of the auditor's responsibility in the usual two-paragraph form. If a separate short-form report has been given, the long-form report may also include the certificate, or if desired, reference can be made to the opinion in the short-form report with proper identification of that report.

Writing the Long-Form Report

The only tangible evidence the client receives of the many hours spent by the auditor in making his examination is the auditor's report. The report also represents the principal basis the client has for judging the ability and competence of the auditor whom he has engaged. In this position as the focal point of the auditor's work, the report obviously deserves maximum care and attention in its preparation. After the auditor has devoted many hours to making a thorough and competent examination, he should not risk destroying the effect of his work through a carelessly or hurriedly written report. In terms of building a clientele of enthusiastic supporters, an additional hour or two spent in perfecting a good report will produce a greater return for the auditor than almost anything else he can do.

Organization. Very few good reports have been written by simply writing as ideas come to mind. The best procedure is to jot down all possible items which might be included, organize them about a logical framework, and then discard those which contribute little or nothing to the presentation of the principal ideas to be communicated.

The "newspaper" technique of organization is ideal for audit reports. The objective is to arrange the material in descending order

of importance, with the principal idea or facts set forth in the first paragraph. Supplementary information or supporting facts are then detailed in following paragraphs, still under the rule that the most important things should come first. The value of such an arrangement lies in immediately attracting the reader's interest and attention and then inducing him to read on to learn the pertinent details. These details should also be arranged with the most important items first, followed by any others necessary to complete the picture. In this way, the reader can stop at any time he feels he has gained sufficient information, and he will have missed none of the principal ideas or facts.

If the arrangement of material in descending order of importance is not followed, there is always a possibility that the reader may lose interest and stop reading before reaching the most important items. If the reader continues in spite of the temptation to stop, when he does reach the important material he is likely to feel that the writer had no real understanding of his needs and problems. There is no other possible explanation for finding the major items buried at various places throughout the report. To illustrate this point, the reader is asked to compare the following examples:

1. A 10 per cent decrease in net sales, a 12 per cent decrease in cost of sales, and a decrease in operating expenses from 28 per cent of net sales to 26 per cent of net sales resulted in increased net income for the year as compared with the previous year. The net income for the current year was $1,254,631.82, as compared with $1,193,927.85, or an increase of 5 per cent.

2. Careful buying and control of expenses in the face of declining sales enabled the company to realize net income of $1,254,631.82, an increase of 5 per cent over the preceding year. Cost of sales were reduced 12 per cent while sales were declining 10 per cent, producing additional margin of $35,246.15. Operating expenses were reduced $25,457.82, decreasing from 28 per cent of net sales last year to 26 per cent of sales this year.

Style. A report should be written in a formal style, of course, but it need not be ponderous or sonorous. Short sentences which come right to the point are much easier to read than long, involved sentences which may have to be analyzed before the meaning is clear. Similarly, one- and two-syllable words and short paragraphs with a liberal sprinkling of captions aid the reader in comprehension.

One writer* has analyzed a number of examples of accountants'

* John Mantle Clapp, *Accountants' Writing*, Copyright, 1948, The Ronald Press Company.

writing and found them deficient in most of the above respects. In evaluating such writing he used as his standard an analysis of an editorial in *The New York Times,* which he judged to be an example of good writing. The following tabulation summarizes the results of his analysis:

Clauses, average words	11
Sentences, average words	21
Paragraphs, average words	75
One-syllable words	63%
Two-syllable words	20%
Larger words	17%

Writing is not, of course, necessarily good merely because it matches the above statistics. But good writing which exceeds the average number of words in the three categories, or has a high proportion of multisyllabic words, can probably be made better. Bringing it closer to the standard based on the editorial passage from *The New York Times* would be certain to improve it.

Excessive use of accountants' jargonese is another fault which the report writer should studiously avoid. Unlike the doctor or the lawyer, the auditor must communicate his ideas to his client. The doctor may state that the patient is suffering from arteriosclerosis combined with the effect of a gangrenous cholecystitis, but if he can proceed to cure the patient, the exact nature of the ailment is probably relatively unimportant to the patient. But the auditor doesn't have the opportunity to effect the cure—his services usually close with the diagnosis of the business ailment. Accordingly, he can expect a certain amount of difficulty if he reports to the business executive that: "The nominal burden rate used during the year resulted in unabsorbed burden which relieved the principal by-products of a fair apportionment of indirect costs. The resulting inflated realization figures induced a reduction of the sale price and actually caused the by-products to have a decremental effect on net income rather than an incremental effect."

A technical term may often provide a tempting short cut in expressing a given idea, but if the auditor wishes to communicate the idea to the client he will do better to exchange his professional jargon for general business terminology of broader usefulness.

Mechanics. Although basically mechanics are less important than organization and style, errors in mechanics are more obvious and thus are most likely to add definiteness to an unfavorable impression. Spelling errors are the most apparent defect in writing, and they are likely to bring the reader to an abrupt halt in his thinking and cause a lowering of his esteem of the writer. Fewer people may recognize

grammatical errors, but such errors are equally as damaging as spelling errors when they are detected.

Surveys designed to disclose the deficiencies of college graduates entering the public accounting profession almost invariably show that the inability to write well is a principal shortcoming. Although the inability to write in a clear, readily understood fashion is undoubtedly the leading cause of such unfavorable reactions, grammatical and spelling errors are probably also an important factor. They are certainly the least excusable inasmuch as they are the easiest to correct.

Preparing the Report for Delivery to the Client. The auditor will usually be well advised to discuss the preliminary draft of any report with appropriate officials in the client's organization. Such discussions will often reveal changes which the auditor can make to cause the report to be more useful or more acceptable to the client. These comments apply particularly to reports which are to be submitted to creditors or other third parties.

When the staff auditor releases the report for typing, he must be certain that his draft is in the exact form which he expects the finished report to take. Dollar signs and rulings should be shown where necessary, and no abbreviations should be used unless they are to appear in the completed report. The actual typing of the report requires highly skilled and exacting work. Tabular, or statistical, typing must be carefully planned to get all the necessary material for a statement or schedule on one page and to have the material well located within the available space. The typing and corrections on as many as ten carbon copies must be as neat as the original copy, although the growing use of Multilith duplication has removed much of this burden.

The typed report should be proofread, and all mathematical calculations should be verified. Some firms then have the finished report "referenced." This process involves verifying figures in the body of the report by reference to corresponding figures in the financial statements. All other figures in the report and in the financial statements are then referenced against the original figures in the working papers. Such referencing should not be looked upon as simply a mechanical procedure. The person who does the work should have a good knowledge of accounting, and often the work is assigned to members of the regular audit staff. Referencing is the final check of the over-all acceptability of the report and financial statements. If errors are undetected in this process, the client is likely to be the

only person who will find them. Such a situation obviously would immeasurably weaken the effectiveness of the report and create a poor impression of the quality of the auditor's work.*

REPORTS FOR BANKS OR OTHER CREDIT AGENCIES

Bank credit men or others concerned with the lending of funds need considerably more information than is shown in the typical set of financial statements. Also, their needs for information are often different from the needs of business management, although the difference is largely a matter of emphasis. To acquaint businessmen and accountants more fully with these needs, Robert Morris Associates, which is the national association of bank loan officers and credit men, published in 1951 a pamphlet entitled *Financial Statements for Bank Credit Purposes.* It sets forth standards for statement presentation and disclosure which are similar to the standards of statement presentation listed in earlier chapters of this book. The pamphlet also sets forth various types of supplementary information which are useful to persons who approve the granting of loans or other types of credit. The types of supplementary information recommended are summarized in the following sections.

Receivables. If notes receivable are significant in amount, they should be itemized showing date of origin, maker, maturity, and any security given. If a large number of notes is involved, a summary should be given aging the notes by date of origin and classifying the notes as current or past due and secured or unsecured. The amount of notes taken for past due accounts should also be shown.

Trade accounts receivable should be aged either according to date of sale or according to whether they are not yet due, past due from 1 to 30 days, 30 to 60 days, 60 to 90 days, and so on. Selling terms should be stated, and any important deviations from those terms should be indicated. If there is a concentration of receivables in a relatively few large accounts the names of the largest debtors and the amounts owed by them should be listed. Amounts receivable other than from trade customers should be itemized to indicate their nature, liquidity, and value.

If provision is made for doubtful accounts the basis of determining

* Possible variations in the above procedures might include having the report referenced before it is typed (in order to eliminate correction of the numerous finished copies), and having the report read critically by a "report editor" to help achieve high standards of uniformity and excellence in all reports.

the provision should be given. An analysis should also be provided showing the changes in the provision account during the year.

Inventories. In addition to classifying inventories by stage of manufacture, if appropriate and practical they should also be classified by location, department, or product. If the Lifo method of inventory valuation is used, the year of adoption should be stated. The amount of any inventory write-downs during the year should be given, and the amount and description of any slow moving inventory items should be stated.

Cash Surrender Value of Life Insurance. Information should be provided showing the names of insured, insurer, and beneficiary, and the face amount and cash surrender value of each life insurance policy.

Property, Plant, and Equipment. The asset accounts and the related amounts of accumulated depreciation should be analyzed showing beginning balance, additions, reductions, and ending balance. The manner in which depreciation is computed should be outlined and the rates used for the various classes of assets listed. Any information resulting from independent appraisals should be given.

Other Assets. Material amounts of prepaid expenses or deferred charges should be itemized to indicate their identity. Tax refund claims should be listed according to the nature of the refunds, the years to which they apply, and their current status. The basis for amortization of any intangible assets should be noted.

Current Liabilities. For notes which are material in amount, names of payees and maturity dates should be given. Important amounts payable to other than trade creditors should be itemized and described. Trade accounts payable should be aged by date of origin, and customary purchase terms should be stated. Any accounts which are past due should be shown separately. The terms under which any customers' deposits have been received should be indicated.

Other Liabilities. In addition to the normal information included in the financial statements concerning long-term liabilities, the names of the payees should be given for any significant individual obligations. The provisions of any covenants relating to long-term liabilities should be summarized and a statement included as to the compliance with such covenants. A definite statement should be made concerning the existence or absence of any contingent liabilities and full information given on any such liabilities which do exist. Any commitments relating to purchases of machinery or construction of buildings should be disclosed.

The latest year for which income tax returns have been reviewed and closed should be stated. Any additional tax assessments should be reported, even though they are being contested.

Reserves. A summary of changes in any reserve accounts should be provided, and the nature and purpose of all reserves should be clearly indicated.

Income Statement. Revenues and expenses should be reported in adequate detail. Disclosure should not be limited by combining material amounts with other items, or offsetting incomes and expenses. If practical, unit figures should be given for sales and cost of sales, and breakdowns by division, department, or product should be included. The amount of unfilled sales orders on hand should be given.

Other Information. It is desirable to include summaries showing the month-end balances of the following accounts: cash, trade receivables, inventories, notes payable, and trade payables. Monthly cash and charge sales figures are also useful to the banker in estimating the amount and duration of seasonal borrowing.

Information is often desired concerning the method and extent of confirmation of receivables and the extent of tests of inventory quantities and prices. Also, the auditor's specific opinion may be requested concerning the adequacy of provisions for losses on doubtful accounts and income taxes.

Insurance policies in effect should be summarized as to type, and information supplied concerning coverage limits and the book value of insured assets, preferably broken down by locations. Coinsurance should be so indicated.

A brief description of any pension plan should be given.

Any material or unusual contractual agreements should be disclosed, including any sale and lease-back transactions.

Consolidated statements should be supported by schedules showing the details of the consolidation.

The items of information listed in the preceding pages and suggested for possible inclusion in a long-form report prepared for credit purposes are numerous indeed. Yet the reader should note that the auditor should be able to obtain most of this information directly from his working papers. The information is almost entirely of a type which the auditor should consider in arriving at his opinion concerning the client's financial statements.

Budgets. With respect to budgets, the pamphlet states, "Budgets have a definite value to the businessman for planning and control, and are often required for bank credit purposes, particularly in con-

nection with term loan applications." In this connection, it might be noted that one of the banker's principal concerns is how a loan, if granted, can be repaid. If clients regularly prepare budgets, the cash budget together with the supplementary information listed in the preceding sections will usually supply the principal answers which the banker is seeking.

If the client who is seeking a loan does not prepare a regular budget, the auditor will be well advised to offer his assistance to the client in preparing a cash forecast showing how the loan is expected to be repaid. The forecast should not ordinarily be included in the auditor's report, but rather should be submitted to the banker by the client as a separate document. The prospective borrower who can show the banker exactly what he plans to do with the money he wishes to borrow and how he expects to repay it is certain to receive a more favorable reaction from the banker than the one who is sure of only one thing: that he needs some money. Even though the auditor cannot express an opinion on a cash forecast, the banker will usually be more inclined to accept the forecast if he knows that the auditor has assisted in its preparation.

General Comments Concerning Long-Form Reports for Credit Purposes

The various items summarized above from the Robert Morris Associates pamphlet represent an all-inclusive list of informative data which might be covered in preparing a long-form report for credit purposes. In each particular case the auditor should evaluate the client's situation from the point of view of what information would be of value to the credit man and then include only such information in the report he prepares.

The comment in the pamphlet recommending the inclusion in the long-form report of certain information about the scope of the auditor's examination seems to be a carry-over from the days when there were no generally accepted auditing standards. The present level of development of the public accounting profession should obviate the need for such a recommendation. Credit agencies should be willing to accept the professional judgment of the Certified Public Accountant if he states that his examination has been made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as he considered necessary in the circumstances. Such a statement is backed by the C.P.A.'s most valuable asset—his professional reputation. Also, the competence of the C.P.A. to judge the adequacy

of his examination is implicit in his possession of a C.P.A. certificate, which is issued only to persons who have received adequate training and have demonstrated a high degree of proficiency in auditing and accounting matters. The adequacy of an examination made in accordance with generally accepted auditing standards is reasonably assured by the research and educational activities of the American Institute of Accountants in developing and establishing such standards.

Another factor which makes information about the scope of the auditor's examination superfluous is the fact that the adequacy of the examination can be judged only in the light of full information about the client's accounting system and records. Only the auditor would be sufficiently acquainted with such factors as the degree of internal control to be able to evaluate the adequacy of the procedures which were applied.

A Sample Long-Form Report Prepared for Credit Purposes

An actual long-form report prepared primarily for credit purposes is reproduced by permission in the following pages to illustrate the content and arrangement of such a report. The report, prepared by a national firm of public accountants, pertains to the J. B. Ehrsam & Sons Mfg. Company, a prominent organization on the Kansas industrial scene with an interesting and varied history.* Although the examination and report were required primarily to comply with the terms of the bond trust indenture to which the company is a party, a copy of the report was filed with the bank which held the company's short-term note, and the report also served as an historical record for the management of the company. The reader should note how closely the report follows the recommendations of Robert Morris Associates and how helpful such information would be to the company's creditors.

The report includes one item of information not mentioned in the Robert Morris Associates booklet: a source and application of funds statement, included under the heading "Disposition of Income and Other Corporate Funds." The experience of accountants generally has been that such a statement usually proves to be both helpful and interesting as a means of portraying the flow of funds during the year. As a result, the statement is commonly included in various types of financial reports or analyses.

The reader is urged to study carefully the following report as an excellent example of a report prepared for credit purposes.

* See *The Company and the Community*, by E. G. Nelson, published by the Bureau of Business Research of the University of Kansas, for an interesting historical account of

ARTHUR YOUNG & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
21 WEST TENTH STREET
KANSAS CITY 5, MISSOURI

October 8, 1953

To the Board of Directors of
The J. B. Ehrsam & Sons Mfg. Company

We have examined the balance sheet of The J. B. Ehrsam & Sons Mfg. Company at July 31, 1953 and the related statement of income and earned surplus for the fiscal year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement of income and earned surplus present fairly the financial position of The J. B. Ehrsam & Sons Mfg. Company at July 31, 1953 and the results of its operations for the fiscal year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Supplementary information is included in this report, as detailed in the index, giving further particulars as to audit procedures, capitalization and various financial matters.

Arthur Young & Company

Summary of Audit Procedures

Cash balances in banks as confirmed directly to us by depositaries were reconciled with amounts shown in the books.

Requests for confirmation of trade accounts receivable were mailed to customers owing $287,339.66 representing 91% in amount and 56% in number of the totals. Replies were received as to accounts representing 55% in amount and 74% in number of those requested. The reported differences were of minor amount and were explained satisfactorily. Customers who did not reply owed $128,810.43; the records indicated that $67,137.46 was collected on these accounts prior to September 9, 1953.

Our representatives observed the inventory taking and tested the counts made by employees. Prices and computations were tested and

a review made to see that adequate provision had been made for possible loss on obsolete, slow-moving and surplus material.

Cash surrender value of life insurance was confirmed by the insurance companies.

Tests were made of the charges to the fixed asset accounts during the year to determine that such expenditures represented additions or improvements.

All known liabilities are stated in the balance sheet. Management represented that no contingent liabilities existed and none were noted by us.

Income and expense accounts were reviewed and certain of the recorded amounts were tested and analyzed by reference to records of original entry and supporting data.

Capitalization and Business

The J. B. Ehrsam & Sons Mfg. Company, a Kansas corporation, was organized in 1902. It has an authorized capitalization of 1,000 shares of 7% cumulative preferred stock of $100 par value per share, 1,000 shares of 5% cumulative preferred stock of $100 par value per share, and 1,000 shares of common stock without par value. The 7% preferred stock is redeemable at $107 per share and accrued dividends and the 5% preferred stock at $100 per share and accrued dividends. Preference on liquidation of both preferred stocks is $100 per share and accrued dividends.

At July 31, 1953 there were outstanding 715 shares of 7% preferred stock, 540 shares of 5% preferred stock and 1,000 shares of common stock.

The Company manufactures and sells grain handling and elevator equipment, general conveying and power transmission machinery, gray iron foundry castings and specialized machinery used in the production of gypsum plaster and wallboard.

Information on Operations

A statement of income and earned surplus for the fiscal year ended July 31, 1953 is shown in Exhibit B with comparative figures for the previous year.

Cost of sales for the fiscal year ended July 31, 1953, as detailed in Schedule 3, was 79.1% of net sales, a slight increase over the 78.9% for the preceding year.

Depreciation increased only $98.79 over the provision for the previous year and amounted to $36,393.46, of which $34,461.60 was charged to manufacturing expense. The current year's provision was

computed at the same rates as in the preceding year and the increase in depreciation was due to the acquisition of additional depreciable assets. Details of the depreciation provided are set forth in Schedule 2.

Selling and administrative expenses for the current year decreased $31,932.61 and equaled 13.6% of net sales as compared with 16.1% for the previous year.

The loss on rental property and filling station operations amounted to $631.87 and $3,912.45, respectively, compared with a profit of $113.89 in 1952 on rental property included in miscellaneous other income, and a loss of $660.57 on filling station operations reflected in net sales and cost of sales in the preceding year.

Federal and State taxes on income absorbed 49.8% of income before such taxes compared with 50.1% in the prior year.

Disposition of Income and Other Corporate Funds

The following statement shows the disposition of income and other corporate funds:

Funds provided from operations:	
Net income for the year	$ 93,872.55
Expense items not requiring cash expenditures:	
Depreciation of fixed assets	36,393.46
Depreciation of rental property and filling station	1,359.39
Amortization of patents	561.47
Total funds provided from operations	$132,186.87
Funds were expended as follows:	
Retained in business:	
Additions to fixed assets, $38,233.69 plus adjustment of accumulated depreciation applicable to prior year of $105.64	$ 38,339.33
Additions to patents, net	145.50
Additions to filling station building and equipment, net	3,437.18
Increase in cash surrender value of life insurance	2,962.67
Increase in insurance cash reserve fund and deposits	7.04
Advance as evidenced by note receivable	1,395.00
	$ 46,286.72
Less decrease in prepaid insurance and deferred charges	2,008.27
	$ 44,278.45
Dividends on preferred stocks	7,705.00
Reduction of long-term debt	38,370.59
Total funds expended	$ 90,354.04
Increase in working capital	$ 41,832.83

The position of the working capital at July 31, 1953 and July 31, 1952 is indicated in the following tabulation:

	1953	*1952*	*Increase (decrease)*
Current assets	$884,298.26	$953,812.76	$(69,514.50)
Current liabilities	263,434.31	374,781.64	(111,347.33)
Net working capital	$620,863.95	$579,031.12	$ 41,832.83
Current assets per $1.00 of current liabilities	$ 3.36	$ 2.54	

Balance Sheet Information

A balance sheet at July 31, 1953 is shown in Exhibit A and the following information is furnished on certain of the items appearing therein.

Cash

Cash is composed of the following balances:

Dickinson County Bank, Enterprise, Kansas	$26,977.54
Traders National Bank, Kansas City, Missouri	39,033.09
Commercial National Bank, Kansas City, Kansas	16,706.96
Abilene National Bank, Abilene, Kansas	4,466.81
Petty cash funds	274.59
	$87,458.99

Accounts receivable—trade

Accounts receivable—trade at July 31, 1953 and 1952 are analyzed in the following summary:

	1953		*1952*	
	Amount	*%*	*Amount*	*%*
Accounts billed in:				
July	$245,387.22	77.7	$193,933.19	72.5
Past due:				
June	26,346.80	8.3	50,166.82	18.7
May	4,489.03	1.4	3,803.48	1.4
Prior	39,708.91	12.6	19,728.79	7.4
	$315,931.96	100.0	$267,632.28	100.0
Less allowance for doubtful accounts	31,416.35		23,167.99	
	$284,515.61		$244,464.29	

Changes in the allowance for doubtful accounts during the year are as follows:

Balance at July 31, 1952	$23,167.99
Provision charged to expense	12,418.38
Recoveries on accounts charged off in prior years	850.00
	$36,436.37
Accounts charged off	5,020.02
Balance at July 31, 1953	$31,416.35

The Company's trade terms call for net payment within thirty days after date of invoice.

Other accounts receivable

These consist of:

Due from officers and stockholders	$2,035.51
Due from employees	1,746.59
Miscellaneous receivables	757.15
	$4,539.25

Inventories

The inventories at July 31, 1953 and 1952 are summarized below:

	1953	*1952*	*Increase (decrease)*
Manufactured goods	$106,417.68	$144,952.28	$(38,534.60)
Work in process	92,586.36	217,129.51	(124,543.15)
Raw materials	269,554.94	252,303.80	17,251.14
Supplies	39,225.43	48,946.62	(9,721.19)
	$507,784.41	$663,332.21	$(155,547.80)

The inventories at July 31, 1953 are priced at the lower of cost (first-in, first-out basis) or market and are based on physical counts at July 31, 1953.

Investment in rental property and filling station

Rental property comprises dwelling units in Enterprise, Kansas, which have an aggregate cost of $29,225.41 less accumulated depreciation of $11,917.95. Cost of filling station (building and equipment) aggregates $8,153.14 less accumulated depreciation of $731.66.

Cash surrender value of life insurance

The insurance policies carried by the Company on the lives of officers and the net cost thereof in the fiscal year ended July 31, 1953 are summarized as follows:

	Face value	*Surrender value*	*Net cost for year*
David M. Ehrsam, Stockholder	$135,000	$11,640.20	$1,398.28
Edward H. Kuster, Secretary	25,000	11,569.81	725.98
	$160,000	$23,210.01	$2,124.26

The policies are assigned under the indenture securing long-term debt.

Insurance cash reserve fund and deposits

These consist of:

Insurance deposits	$1,828.72
Transportation deposits	480.00
Insurance cash reserve fund	857.25
	$3,165.97

Fixed assets—net

Classified statements of fixed assets and accumulated depreciation, showing changes during the year, are shown in Schedules 1 and 2. The changes in the investment in fixed assets during the year are summarized below:

	Cost	*Depreciation*	*Net*
Balance at July 31, 1952	$589,577.27	$265,168.15	$324,409.12
Additions	38,233.69	..	38,233.69
Provision for depreciation	..	36,393.46	(36,393.46)
	$627,810.96	$301,561.61	$326,249.35
Retirements	29,737.55	29,843.19	(105.64)
Balance at July 31, 1953	$598,073.41	$271,718.42	$326,354.99

Patents

The changes in the investment in patents during the year are as follows:

	Cost	*Amortization*	*Net*
Balance at July 31, 1952	$11,976.75	$4,910.59	$7,066.16
Additions	346.50	..	346.50
Amortization	..	561.47	(561.47)
	$12,323.25	$5,472.06	$6,851.19
Write-offs	201.00	..	201.00
Balance at July 31, 1953	$12,122.25	$5,472.06	$6,650.19

Insurance coverage

Insurance in force at July 31, 1953 is as follows:

	Coverage
Fire—merchandise inventories ($50,000—90% co-insurance)	$306,000
Fire—buildings ($63,000—90% co-insurance)	393,500
Fire—machinery ($165,000—90% co-insurance)	171,000
Fire—patterns	20,000

Fire—furniture and fixtures ($10,000—90% co-insurance)	15,000
Fire—rental property and filling station	22,000
Business interruption (80% co-insurance)	325,000
Truck fleet policy (fire and comprehensive)	Various
Cargo—merchandise in Company trucks	7,500
Blanket fidelity bond	20,000
Comprehensive general liability (bodily injury)	50,000/100,000
Comprehensive auto liability	25,000/50,000
Group life insurance and hospitalization	..
Workmen's compensation	Self-insured

Unamortized debt discount and expense

The unamortized debt expense was incurred in connection with the issue and sale of the Company's first mortgage and collateral trust 5% bonds in September 1949. The balance of $4,777.46 at July 31, 1953 relates to the remaining $122,000 principal amount of such issue, and will be amortized by the "bonds outstanding" method over the remaining life of the issue.

Accounts payable

These include:

Accounts payable—trade	$ 71,280.81
Employees' taxes withheld:	
Federal withholding tax	22,579.88
Federal old age benefits tax	1,571.73
Employees' accounts:	
Due officers, stockholders and employees	11,105.65
Credit union	568.75
Bond account	697.98
Union dues	665.25
Other	160.44
	$108,630.49

Federal and State taxes on income

This accrued liability may be analyzed as follows:

Federal normal tax and surtax:		
Provision for current year		$91,000.00
Balance of accruals for prior periods		3,876.86
		$94,876.86
Less U.S. Treasury savings notes held—at cost		50,000.00
		$44,876.86
State income tax:		
Provision for current year	$2,000.00	
Balance of accruals for prior periods	432.89	2,432.89
		$47,309.75

The Internal Revenue Bureau has not made a field examination of the returns subsequent to the year 1939, but it is not believed that the gross income and deductions for the years not closed by statute contain any items which may require material adjustment.

Accrued salaries, wages and commissions

These consist of:

Accrued salaries and wages	$13,766.44
Accrued commissions	32,593.73
	$46,360.17

Other accrued liabilities

These include:

Social security and unemployment taxes	$ 4,382.44
Property taxes	4,632.50
Interest	2,604.22
Workmen's compensation and other insurance	5,015.43
Sales tax	769.82
	$17,404.41

First mortgage and collateral trust 5% bonds

The bonds are redeemable at face value plus accrued interest, at any time, in whole or in part.

In addition to the fixed sinking fund payments of $10,000.00 on March 1 and September 1 of each year, the indenture securing the 5% bonds provides for payments to a contingent sinking fund based on net income for each fiscal year. The computation of the payment for the current year is as follows:

	Subject to rate of	
	20%	*35%*
Net income (Exhibit B)	$ 40,000.00	$53,872.55
Less gain on sale of fixed assets, net of taxes on income applicable thereto	..	74.00
	$ 40,000.00	$53,798.55
Additions to fixed assets (less office furniture and fixtures and autos and trucks, $6,786.47—Schedule 1) and filling station, $3,133.72	(34,580.94)	..
Preferred stock dividends paid	(7,705.00)	..
	$(2,285.94)	$53,798.55

Contingent sinking fund payment:

At 20% rate	None
At 35% rate $53,798.55=	$18,829.49

The indenture further provides that the Company will not pay any cash dividends or purchase any shares of its capital stock except from net income and proceeds from capital stock issues subsequent to August 31, 1949 reduced by cash dividends paid and the cost of reacquired stock for the same period. Such payments, however, shall not reduce net current assets, as defined, below $500,000 with respect to common stock or $410,000 with respect to preferred stocks. At July 31, 1953 net current assets, as defined, amounted to $620,863.95 and earned surplus was unrestricted as to such payments in the amount of $210,863.95 in respect to preferred stocks and $120,863.95 in respect to common stock as shown in the following statement.

Total current assets (Exhibit A)		$884,298.26
Deduct adjustment of inventories, as defined:		
Inventories (Exhibit A)	$507,784.41	
Less 20% of net sales $2,699,970.66 (Exhibit B)	539,994.13	None
Total current assets, as defined		$884,298.26
Current liabilities, as defined:		
Total current liabilities (Exhibit A)	$263,434.31	
Other liabilities, as defined	None	263,434.31
Net current assets		$620,863.95
Unrestricted as to preferred stocks (requirement $410,000)		$210,863.95
Unrestricted as to common stock (requirement $500,000)		$120,863.95

Capital stock and surplus

There were no changes during the year in the capital stock accounts.

Changes in earned surplus including an analysis of portions restricted and unrestricted as to payments with respect to capital stock are shown below:

	Preferred stock		*Common stock*	
	Restricted	*Unrestricted*	*Restricted*	*Unrestricted*
Balance at July 31, 1952	$433,035.26	$ 256,817.69	$433,035.26	$ 256,817.69
Net income for the fiscal year ended July 31, 1953	..	93,872.55	..	93,872.55
	$433,035.26	$ 350,690.24	$433,035.26	$ 350,690.24
Less dividends paid	..	7,705.00	..	7,705.00
	$433,035.26	$ 342,985.24	$433,035.26	$ 342,985.24
Working capital restriction	132,121.29	(132,121.29)	222,121.29	(222,121.29)
Balance at July 31, 1953	$565,156.55	$ 210,863.95	$655,156.55	$ 120,863.95

THE J. B. EHRSAM & SONS MFG. COMPANY
BALANCE SHEETS
AT JULY 31, 1953 AND 1952

Assets	*1953*	*1952*
Current Assets:		
Cash	$ 87,458.99	$ 35,443.50
Accounts receivable—trade (less allowance for doubtful accounts, 1953—$31,416.35, 1952—$23,167.99	284,515.61	244,464.29
Other accounts receivable	4,539.25	10,572.76
Inventories, at lower of cost or market (see report, page 622)	507,784.41	663,332.21
Total current assets	$ 884,298.26	$ 953,812.76
Other Assets:		
Investment in rental property and filling station (less depreciation, 1953—$12,649.61, 1952—$11,290.22)	$ 24,728.94	$ 22,651.15
Cash surrender value of life insurance on officers (policies are assigned under indenture of mortgage)	23,210.01	20,247.34
Insurance cash reserve fund and deposits	3,165.97	3,158.93
Note receivable	1,395.00	..
	$ 52,499.92	$ 46,057.42
Fixed Assets, at cost less accumulated depreciation (Schedules 1 and 2):		
Land	$ 3,200.00	$ 3,200.00
Buildings, machinery and equipment	594,873.41	586,377.27
	$ 598,073.41	$ 589,577.27
Less accumulated depreciation	271,718.42	265,168.15
	$ 326,354.99	$ 324,409.12
Patents, at cost less amortization	$ 6,650.19	$ 7,066.16
Deferred Charges:		
Prepaid insurance and other expense	$ 10,544.50	$ 10,684.72
Unamortized debt expense	4,777.46	6,645.51
	$ 15,321.96	$ 17,330.23
	$1,285,125.32	$1,348,675.69

Liabilities, capital stock and surplus	*1953*	*1952*
Current Liabilities:		
Notes payable to bank (1952—secured)	$ 4,900.00	$ 25,000.00
Portion of long-term debt due within one year (see report, page 625)	38,829.49	28,458.90
Accounts payable	108,630.49	169,429.34
Federal and State taxes on income (less U.S. Treasury savings notes, 1953—$50,000)	47,309.75	68,490.37
Accrued salaries, wages and commissions	46,360.17	65,694.13
Other accrued liabilities	17,404.41	17,708.90
Total current liabilities	$ 263,434.31	$ 374,781.64
Long-Term Debt (see report, page 625)		
First mortgage and collateral trust 5% bonds, due September 1, 1959 (less $38,829.49 in 1953 and $28,458.90 in 1952 included in current liabilities)	$ 83,170.51	$ 121,541.10
Capital Stock and Surplus:		
7% cumulative preferred stock, par value $100 (redemption price $107, preference on liquidation $100), authorized 1,000 shares, outstanding 715 shares	$ 71,500.00	$ 71,500.00
5% cumulative preferred stock, par value $100 (redemption price and preference on liquidation $100), authorized 1,000 shares, outstanding 540 shares	54,000.00	54,000.00
Common stock, without par value, stated value $37, authorized and outstanding 1,000 shares	37,000.00	37,000.00
Earned surplus (Exhibit B) (see report, page 626)	776,020.50	689,852.95
	$ 938,520.50	$ 852,352.95
	$1,285,125.32	$1,348,675.69

See accompanying information relating to the financial statements.

THE J. B. EHRSAM & SONS MFG. COMPANY
STATEMENT OF INCOME AND EARNED SURPLUS
FOR THE FISCAL YEARS ENDED JULY 31, 1953 AND 1952

	1953		1952	
	Amount	*%*	*Amount*	*%*
Gross Sales	$2,821,700.27		$2,516,428.17	
Less discounts, returns and allowances	121,729.61		33,265.46	
Net Sales	$2,699,970.66	100.0	$2,483,162.71	100.0
Cost of Sales (Schedule 3)	2,135,138.16	79.1	1,958,440.52	78.9
	$ 564,832.50	20.9	$ 524,722.19	21.1
Selling and Administrative Expenses (Schedule 4):				
Selling expense	$ 201,291.65	7.5	$ 237,551.15	9.6
Administrative expense	166,042.45	6.1	161,715.56	6.5
	$ 367,334.10	13.6	$ 399,266.71	16.1
	$ 197,498.40	7.3	$ 125,455.48	5.0
Other Income:				
Discounts earned	$ 4,954.27		$ 962.23	
Interest	787.23		821.28	
Miscellaneous	386.95		2,806.33	
	$ 6,128.45	.2	$ 4,589.84	.2
	$ 203,626.85	7.5	$ 130,045.32	5.2
Other Deductions:				
Interest and other financing expense	$ 10,188.18		$ 19,108.73	
Amortization of debt discount and expense	2,021.80		2,973.40	
Loss on rental property and filling station (See report, page 620)	4,544.32		..	
	$ 16,754.30	.6	$ 22,082.13	.9
	$ 186,872.55	6.9	$ 107,963.19	4.3
Provision for Federal and State Taxes on Income	93,000.00	3.4	54,100.00	2.2
Net Income for the Year	$ 93,872.55	3.5	$ 53,863.19	2.1
Earned Surplus at Beginning of Year	689,852.95		643,694.76	
	$ 783,725.50		$ 697,557.95	
Dividends:				
7% cumulative preferred stock	$ 5,005.00		$ 5,005.00	
5% cumulative preferred stock	2,700.00		2,700.00	
	$ 7,705.00		$ 7,705.00	
Earned Surplus at End of Year (Exhibit A) (See report, page 626)	$ 776,020.50		$ 689,852.95	

See accompanying information relating to the financial statements.

Schedule 1

THE J. B. EHRSAM & SONS MFG. COMPANY
STATEMENT OF FIXED ASSETS
FOR THE FISCAL YEAR ENDED JULY 31, 1953

	Fixed assets					*Accumulated depreciation at July 31, 1953*	*Net amounts at July 31, 1953*
	Balance at July 31, 1952	*Additions*	*Retirements*	*Transfers in—(out)*	*Balance at July 31, 1953*		
Land	$ 3,200.00	$ ..	$ ..	$ ..	$ 3,200.00	$ ..	$ 3,200.00
Buildings	193,393.79	12,670.69	..	..	206,064.48	64,272.05	141,792.43
Machinery and Equipment:							
Sheet metal department	61,436.54	5,464.05	2,160.52	..	64,740.07	40,378.96	24,361.11
Foundry department	151,880.57	3,001.81	11,185.56	..	143,696.82	54,785.53	88,911.29
Wood shop department	3,315.58	..	..	..	3,315.58	2,849.36	466.22
Power	3,778.56	..	..	..	3,778.56	2,896.37	882.19
Machine shop	104,752.00	4,485.74	6,473.78	..	102,763.96	65,476.90	37,287.06
Miscellaneous	12,534.48	5,824.93	2,209.58	7,728.53	23,878.36	15,633.59	8,244.77
Office Furniture and Fixtures	37,575.85	980.69	2,266.38	..	36,290.16	23,082.53	13,207.63
Automobiles and Trucks	17,709.90	5,805.78	5,441.73	(7,728.53)	10,345.42	2,343.13	8,002.29
	$589,577.27	$38,233.69	$29,737.55	$ ..	$598,073.41	$271,718.42	$326,354.99

Schedule 2

THE J. B. EHRSAM & SONS MFG. COMPANY
STATEMENT OF ACCUMULATED DEPRECIATION
FOR THE FISCAL YEAR ENDED JULY 31, 1953

	Balance at July 31, 1952	*Depreciation provided*	*Retirements*	*Transfers in—(out)*	*Balance at July 31, 1953*
Buildings	$ 58,101.81	$ 6,170.24	$ ..	$ ..	$ 64,272.05
Machinery and Equipment:					
Sheet metal department	38,505.80	4,033.68	2,160.52	..	40,378.96
Foundry department	52,179.41	13,791.68	11,185.56	..	54,785.53
Wood shop department	2,772.61	76.75	..	..	2,849.36
Power	2,754.45	141.92	..	..	2,896.37
Machine shop	66,549.68	5,506.64	6,579.42	..	65,476.90
Miscellaneous	8,587.12	2,884.02	2,209.58	6,372.03	15,633.59
Office Furniture and Fixtures	22,605.06	2,743.85	2,266.38	..	23,082.53
Automobiles and Trucks	13,112.21	1,044.68	5,441.73	(6,372.03)	2,343.13
	$265,168.15	$36,393.46	29,843.19	$ ..	$271,718.42

THE J. B. EHRSAM & SONS MFG. COMPANY
STATEMENT OF COST OF SALES
FOR THE FISCAL YEARS ENDED JULY 31, 1953 AND 1952

	1953	*1952*
Inventory of Raw Materials at Beginning of Year	$ 252,303.80	$ 364,142.46
Materials Purchased	962,493.36	761,718.58
	$1,214,797.16	$1,125,861.04
Less Inventory of Raw Materials at End of Year	269,554.94	252,303.80
Materials Consumed	$ 945,242.22	$ 873,557.24
Inventory of Work in Process at Beginning of Year	$ 217,129.51	$ 136,256.76
Manufacturing Expenses:		
Salaries and wages	$ 757,248.89	$ 808,007.31
Supplies	102,325.06	128,998.78
Repairs and maintenance	39,230.28	38,923.90
Depreciation and amortization	34,461.60	34,931.83
Taxes	26,178.01	22,787.64
Gas, water and power	22,737.14	22,241.37
Insurance	20,579.00	15,518.36
Tools and equipment	6,598.12	13,807.33
Telephone and telegraph	6,194.47	6,149.04
Sorbo-Mat royalties	6,026.01	8,365.26
Travel	3,555.04	3,113.23
Patent amortization and expense	944.97	692.13
Other	739.60	3,932.73
	$1,026,818.19	$1,107,468.91
	$2,189,189.92	$2,117,282.91
Less Inventory of Work in Process at End of Year	92,586.36	217,129.51
	$2,096,603.56	$1,900,153.40
Manufactured Goods Inventory Variation (decrease)	38,534.60	58,287.12
	$2,135,138.16	$1,958,440.52

THE J. B. EHRSAM & SONS MFG. COMPANY
STATEMENT OF SELLING AND ADMINISTRATIVE EXPENSES
FOR THE FISCAL YEARS ENDED JULY 31, 1953 AND 1952

	1953	*1952*
Selling Expense:		
Salesmen's salaries and bonuses	$ 94,432.20	$100,394.93
Salesmen's commissions	49,896.30	48,115.30
Officers' compensation	7,846.17	7,281.25
Travel	20,073.90	48,952.63
Advertising and subscriptions	9,726.61	11,283.97
Telephone and telegraph	8,051.13	9,418.67
Insurance	857.17	2,756.51
Supplies	5,133.29	2,709.94
Rent	1,365.00	1,985.69
Taxes	1,676.16	1,748.66
Gas, water and power	736.18	506.69
Depreciation	790.86	369.53
Other	706.68	2,027.38
	$201,291.65	$237,551.15
Administrative Expense:		
Administrative salaries and bonuses	$ 50,212.00	$ 53,300.11
Officers' compensation	42,999.92	42,992.16
Bad debt expense	12,418.38	12,637.66
Professional fees and expenses	12,366.70	12,165.63
Supplies and postage	9,064.98	8,607.65
Travel	10,557.31	5,066.76
Insurance	3,727.36	4,445.88
Telephone and telegraph	3,828.51	4,435.69
Employees' welfare	5,975.24	3,914.15
Inventory expense (see note)	4,969.80	..
I.B.M. machine rental and repairs	..	3,670.85
Taxes	1,892.73	2,081.44
Repairs and maintenance	1,833.13	1,739.65
Pensions	560.00	1,275.00
Collection expense	..	1,262.83
Donations	1,440.00	1,211.12
Dues and subscriptions	1,922.58	1,121.84
Depreciation	1,141.00	993.31
Gas, water and power	519.26	507.61
Other	613.55	286.22
	$166,042.45	$161,715.56
	$367,334.10	$399,266.71

Note: Inventory expense for the year ended July 31, 1952 was $3,300.41 which amount was included in manufacturing expenses under the caption "Other."

REPORTS FOR MANAGEMENT

A long-form report prepared for credit purposes cannot be expected to serve equally well as a report for management. A good report for management purposes should include much more information about operations, whereas the detailed breakdowns and comments pertaining to the various assets and liabilities should be eliminated except for special conditions which would be important to management. Changes in financial position should represent important information to both management and creditors, however, and thus both types of reports should include comparative balance sheets and a statement of funds provided and applied.

As a rule, management reports may be said to vary in length in an inverse relationship to the size of the client. Smaller clients can seldom afford to employ an accountant who is capable of analyzing and interpreting the mass of accounting data for management, and the public accountant usually attempts to fill this void. Larger concerns, on the other hand, customarily have a controller, treasurer, or financial vice-president who oversees and directs an adequate plan of internal reporting.

A Sample Long-Form Report Prepared for Management Purposes

Management reports are not susceptible to standardization to the same extent as reports for credit purposes. A management report should be primarily concerned with the major problems which the business is facing, and hence each report must be tailored to the specific situation. The sample report which is presented in the following pages does, however, embody many features which are commonly used in management reports, and these are commented upon to serve as a partial guide to the preparation of such reports. The report is an excellent example of a management-type report.

Comments About the Report. The report does not include the auditor's certificate but indicates that the certificate was given in a separate short-form report. Then, applying an effective journalistic technique, a summary of the significant events of the year is presented under the heading "Operating and Financial Highlights." The highlights section is interesting in its avoidance of accounting jargon and its use of a narrative form of statement presentation as a substitute for the usual caption and description form. The summary of operations readily shows the disposition of net income for the year and the

relationship between the various items, and then shows how the retained earnings plus the proceeds of some additional financing were utilized. The result is a condensed and somewhat unorthodox form of funds statement, but one which gives a clear picture of the principal financial changes. The offsetting of plant additions and depreciation charges is in line with typical management thinking on such matters and is more understandable to the non-accountant than the technique in which depreciation is added back to the net income figure.

The great amount of detail about inventories and receivables is indicative of the thoroughness of the senior accountant's report and the importance of the problems associated with those items. The trend of inventory prices suggests that the audit presented some serious problems of inventory valuation.

The detailed information on sales and gross margin by product lines is typical of a report for management purposes, as is the detailed analysis and comparison of expenses with those of the preceding year. Comparisons with budgeted figures are also commonly given, presenting an additional means of evaluating the various expense items.

The final recommendations of the senior accountant show a good understanding of what must be done to solve the company's problems, although there is obviously no indication of how to accomplish the desired results. These comments might be criticized, however, from the standpoint of being somewhat outspoken and presumptuous both as to content and tone.

The report is an actual report prepared by a national firm of public accountants for one of its clients, although all names have been changed to conceal the identity of those involved. The material has been prepared for use as a case study, and the following introductory comments give the background of the report.

Horrockson Food Company*

After completing the annual audit of the Horrockson Food Company, Mr. Joseph Small, the public accountant, considered the nature which his report to the client should take. He recognized that the formal certificate incorporating his firm's opinion of the company's annual statements would be of little value to management in appraising its operations and

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prospects. He felt further that extended comments devoted to the scope of audit verification work done would similarly be limited in usefulness. Mr. Small felt, however, that his over-all picture of the company's operations and problems, considered in the light of the experience he had obtained on other assignments and of his independence from intra-company politics, might fruitfully be presented to the management. He was impressed with the changes in the company's position during the year and was not sure that the directors and officers were fully aware of important aspects of the situation. While the accounting department amassed detailed financial and statistical data, the company did little in the way of summarizing and analyzing significant factors.

Mr. Small decided to supplement his formal certification with a summary review of the company's operations and position. Preparation of such reports, where considered worth while, was a policy of Hallowell & Hempstead, Mr. Small's firm, and a file of outstanding reports was maintained. Mr. Small reviewed this file for guidance, but was impressed by the absence of any standard pattern; the individual problems of separate companies invariably called for reports tailored to their specific situations. Consequently, while deriving some guidance from the examples, Mr. Small found it advisable to shape his report especially to fit the Horrockson Food Company's case.

The Horrockson Food Company's major product was packaged cheese, which was sold through wholesalers nationally under the company's brand name.

The company also sold cheese in jars and sandwich spreads. In addition, some storage and processing was done for other cheese producers. The present management had been installed at the beginning of 1942. Its tenure, therefore, had coincided exclusively with the war and immediate postwar periods.

Using company records and his audit working papers as source material, Mr. Small assembled and compiled the necessary data and schedules, which he added to his working paper file. From this analysis, he prepared the following report which he presented to the chairman of the board at the meeting of the directors held to receive the audit report.

February 14, 1947

Mr. K. G. Cleary, Chairman of the Board
Horrockson Food Company
Green Bay, Wisconsin

Dear Mr. Cleary:

Supplementing our certification of the financial statements of Horrockson Food Company, as of December 31, 1946, we wish to take this opportunity of presenting certain comments concerning the operating and financial results for 1946 and prior years.

Operating and Financial Highlights

Operating and financial highlights for the year 1946, compared with 1945, are summarized as follows:

	1946	*1945*
Although quantity sales were approximately the same in 1946 as in 1945, dollar sales and revenues reached a new high; they were $1,286,000 above 1945 because of the higher prices realized. Sales and revenues totaled	$17,897,000	$16,611,000
Inventory write-downs of sandwich spreads ($395,000) and packaged cheese ($140,000) to reflect market declines reduced the operating profits from 6.1% to 3.7%, and after increased expenses of $189,000 operating profits decreased by $343,000	667,000	1,010,000
Repeal of the excess profits tax reduced the portion of the above profits absorbed by income taxes from 60% in 1945 to 40% in 1946 and income tax equaled	258,000	607,000
Net profits in 1946 were about the same as for 1945	409,000	403,000
Dividends paid on preferred stock were	42,000	42,000
Dividends of $2.00 per share were paid on common stock as compared with $1.00 in 1945	139,000	69,000
Earnings reinvested in the business were	228,000	292,000
Earnings per share on the 69,497 shares of common stock were	$ 5.28	$ 5.19
Net assets per share of common stock amounted to	40.26	37.90
Working capital (i.e., net current assets) at the end of the year was	2,047,000	1,749,000

The net proceeds of $961,000 from the sale of 10,000 shares of new 4% preferred stock in November 1946, together with the $228,000 reinvested in the business, were used to:

Retire the outstanding 6% preferred stock (600,000 shares)—including costs of refinancing ($28,000)	$639,000
Add to plant and equipment ($306,000), less provision for depreciation	134,000
Increase supply inventories, etc.	118,000
Increase working capital	298,000

Sales and gross profit:

Sales and gross profits by product lines for 1946 are shown below. Similar information for former years is not available.

	Cheese—Packaged	*Cheese—Jars*	*Sandwich Spreads*	*Total*
	(000 Omitted)			
Net sales	$13,427	$493	$2,556	$16,476
Gross profit (loss)	$ 2,424	$169	($ 167)	$ 2,426
% to net sales	18%	34%	(7%)	15%

Sales and gross profits on *packaged cheese* for 1946 are tabulated by four-week periods below:

	Net Sales			Gross Profit	
	Thousands of Pounds	*Average per Pound*	*Amount*	*Amount*	*%*
			(000 Omitted)		
Four weeks ended—					
January 29, 1946	1,876	$ .532	$ 998	$ 210	21%
February 26	1,940	.528	1,023	206	20
March 26	1,802	.541	974	176	18
April 23	1,382	.532	735	147	20
May 21	1,642	.559	917	174	19
June 18	1,740	.607	1,056	201	19
July 16	1,480	.625	925	166	18
August 13	1,223	.630	770	169	22
September 10	1,544	.671	1,036	197	19
October 8	2,418	.668	1,615	242	15
November 5	1,720	.661	1,137	159	14
December 3	1,699	.649	1,103	154	14
December 31	1,764	.645	1,138	216	19
Total	22,230	$ .604	$13,427	$2,417	18%

Packaged cheese sales totaled 22,230,000 pounds in 1946, as compared with 22,898,000 pounds in 1945, a 3% decrease. However, average realization rose from $.540 to $.604 per pound, and dollar sales were 9% larger than in 1945. The average realization on cheese sales increased as expected after the removal of price controls at the end of June, 1946. Gross margins, however, remained about the same through the summer, because of increases in costs. Sales attained a record high during the four weeks ended October 8, a period when meat, for which cheese was a popular substitute, was being withheld from the market. Sales levels receded and profit margins narrowed, however, with the return of meat to the market and the increase in competitive cheese supplies. During the last three periods of the year, write-downs of about $140,000 were made to reduce packaged cheese inventories from cost to market, with approximately $100,000 applying to the inventory on hand at December 31, 1946.

Gross margin on *cheese jar* sales climbed from $9,000 in 1945 to $169,000 in 1946. Causes were a 70% increase in the quantity sold and a rise of almost $.04 per jar in average realization.

Sandwich spread operations were adversely influenced by the entrance into the field of many new companies. Forced liquidations by some of these companies developed toward the end of the year.

The table on page 638, which summarizes 1946 operations of the sandwich spread division by four-week periods, shows the effect of the sharp price declines which resulted from large nation-wide inventories and distressed selling.

	Net Sales			Gross Profit (Loss)	
	Thousands of Gallons	*Average per Gallon*	*Amount* (000 Omitted)	*Amount*	*%*
Four weeks ended—					
January 29, 1946	51	$2.686	$ 137	$ 26	19%
February 26	70	2.628	184	30	16
March 26	58	2.638	153	24	16
April 23	57	2.632	150	23	15
May 21	53	2.547	135	20	15
June 18	64	2.554	166	21	13
July 16	114	2.649	302	43	14
August 13	123	2.536	312	45	14
September 10	129	2.550	329	36	11
October 8	106	2.651	281	11	4
November 5	60	2.626	154	(14)	..
December 3	53	2.567	132	(87)	..
December 31	51	2.372	121	(345)	..
Total	989	$2.584	$2,556	($167)	(7%)

The steady decline in gross profits of *sandwich spreads* during 1946 is clearly pictured in the foregoing tabulation. Sales reached peak levels during the three periods after the removal of OPA controls on June 30. Prices realized, however, failed to keep pace with costs of labor and materials. By the middle of September, consequently, gross profits dipped from 19% to 11%. During the last four periods of 1946, sales volume declined, while gross margin fell off still more sharply, as losses—including substantial write-downs of inventory—were sustained.

Quantity purchases by the company were considerably greater during 1946 than in any previous year because of greater availability of ingredients and anticipated demand increases. Sales failed to meet expectations, however, and as a result, stocks on hand at the year-end were almost treble those at January 1, 1946. During the last two periods in 1946 write-downs were made to reduce inventories to estimated market. These write-downs totaled $395,000, of which $300,000 is applicable to inventories on hand at December 31, 1946.

Costs and expenses:

There follows a summary comparison of 1946 and 1945 costs and expenses:

	1946	*1945*	*Increase*
Cost of sales (excluding overhead)—			
Purchases, net of increase in inventories	$12,510,000	$11,793,000	$ 717,000
Inventory write-downs resulting from market declines (estimated)	535,000		535,000
Packaging supplies	301,000	259,000	42,000
Storage charges	161,000	69,000	92,000
Supplies, etc.	198,000	182,000	16,000
Direct labor	261,000	223,000	38,000
Total cost of sales (excluding overhead)	$13,966,000	$12,526,000	$1,440,000
% to net sales	85%	82%	3%

Operating expenses—			
Salaries, wages and commissions	$ 1,945,000	$ 1,840,000	$ 105,000
Other operating expenses	1,319,000	1,235,000	84,000
Total	$ 3,264,000	$ 3,075,000	$ 189,000
Total costs and expenses	$17,230,000	$15,601,000	$1,629,000

A further analysis of operating salaries, wages and commissions follows:

	1946	*1945*	*Increase (Decrease)*
Branch expenses—			
Refrigeration, warehouse and shipping labor	$1,053,000	$ 960,000	$ 93,000
Salesmen's salaries and commissions	331,000	213,000	118,000
Salaries of managers and clerks	348,000	315,000	33,000
Managers' bonus	77,000	228,000	(151,000)
Head office—			
Salaries	136,000	124,000	12,000
Total	$1,945,000	$1,840,000	$ 105,000

Components of the rise in operating salaries and wages are summarized as follows:

	Refrigeration, Warehouse, and Shipping Labor	*Managers and Clerks*	*Head Office*
Increase in rates	$62,000	$35,000	$11,000
Increase (decrease) in personnel	31,000	(2,000)	1,000
Total increase	$93,000	$33,000	$12,000

Since quantity sales were not materially larger than in 1945, the major factor demanding more personnel has been the increase in inventories, necessitating additional handling, refrigeration, and maintenance workers.

Although the sales force has not been enlarged, compensation to salesmen has risen because of greater dollar sales on which percentage commissions were based ($15,000), upward adjustments of commission rates ($83,000), and the inception of incentive plans, chiefly in the sandwich spread division, to meet intense selling competition toward the end of the year ($20,000).

The major items included in other operating expenses are:

	1946	*1945*	*Increase (Decrease)*
Fuel, light and power	$ 177,000	$ 145,000	$32,000
Depreciation	172,000	190,000	(18,000)
Repairs	151,000	174,000	(23,000)
Storage and handling	128,000	64,000	64,000
Telephone and telegraph	111,000	94,000	17,000
Taxes, other than income taxes	106,000	125,000	(19,000)
Freight	89,000	74,000	15,000
Advertising	85,000	54,000	31,000
Travel and entertainment	82,000	70,000	12,000
Rent	65,000	60,000	5,000

Insurance	61,000	69,000	(8,000)
Auto expense (other than labor)	42,000	34,000	8,000
Employee pension trust expense	27,000	21,000	6,000
Provision for bad debts	26,000	15,000	11,000
Gain resulting from return of Canadian dollar to par	(42,000)		(42,000)
Other expenses	39,000	46,000	(7,000)
Total	$1,319,000	$1,235,000	$84,000

Review of Financial Position

A comparison of the financial position at the beginning and end of the year is summarized below:

	December 31, 1946	*December 31, 1945*	*Increase (Decrease)*
Current assets—			
Cash and securities	$ 429,000	$ 909,000	($480,000)
Receivables, net	917,000	811,000	106,000
Inventories—			
Cheese	963,000	685,000	278,000
Sandwich spreads	1,056,000	403,000	653,000
	$3,365,000	$2,808,000	$557,000
Current liabilities—			
Notes payable to bank	$ 585,000		$585,000
Accounts payable and accruals	486,000	$ 422,000	64,000
Income taxes	247,000	637,000	(390,000)
	$1,318,000	$1,059,000	$259,000
Net working capital	$2,047,000	$1,749,000	$298,000
Current ratio	(2.6 to 1)	(2.6 to 1)	
Supplies and prepaid expenses	413,000	332,000	81,000
Investments, etc.	76,000	56,000	20,000
Plant and equipment (net)	1,417,000	1,283,000	134,000
Reserve for possible future inventory price decline	(175,000)	(175,000)	
Net assets	$3,778,000	$3,245,000	$533,000
Represented by—			
Preferred stock, par value—			
Old 6%		$ 611,000	($611,000)
New 4%	$ 980,000		980,000
Common stockholders' equity	2,798,000	2,634,000	164,000
Book value per share of common stock	$40.26	$37.90	$2.36

Inventories increased $931,000 in 1946. The rise is due to:

	Cheese	*Sandwich Spreads*
Increased quantities	$140,000	$655,000
Increased (decreased) prices	138,000	(2,000)
	$278,000	$653,000

Quantities of major items held at the ends of the last three years and quantities sold during those years are compared as follows:

	1946	*1945*	*1944*
Packaged cheese (in pounds)—			
On hand at year-end	2,081,000	1,777,000	908,000
Sales during year	22,230,000	22,898,000	23,949,000
Ratio of year-end inventory to sales	9%	8%	4%
Sandwich spreads (in gallons)—			
On hand at year-end	613,000	230,000	90,000
Sales during year	989,000	1,179,000	1,288,000
Ratio of year-end inventory to sales	62%	19%	7%

At the end of each of the above years average unit values were approximately as follows:

	1946	*1945*	*1944*
Cheese (per pound)	$ .45	$ .35	$ .36
Sandwich spreads (per gallon)	1.72	1.75	1.73

At the year-end, the sandwich spread inventory had accumulated to a "long" position evident in the summary on page 642, which lists about 75% of the sandwich spreads held.

	Dozens of Jars	Approximate Inventory Value: Per Dozen Jars	Approximate Inventory Value: Total	Number of Weeks to Sell Based on: Average Sales for Year 1946	Number of Weeks to Sell Based on: Average Sales for Last 6 Weeks of 1946
Consumer sizes (principally 4 2/3 oz. jars)—					
Deviled tongue	22,000	$2.17	$ 48,000	91	89
Egg Salad	48,000	1.92	92,000	126	87
Herring salad	9,000	1.39	12,000	89	132
Liver pate	31,000	1.85	57,000	125	267
Meat	6,000	2.46	15,000	9	68
Pickle-mayonnaise	18,000	1.82	33,000	55	43
Potted meat	21,000	1.14	24,000	15	24
Tuna fish salad	20,000	1.63	33,000	97	116
	Gallons	*Per Gallon*			
Institutional sizes—					
Deviled tongue	38,000	$2.07	$ 79,000	80	105
Egg salad	59,000	1.82	108,000	102	161
Herring salad	22,000	1.32	29,000	81	92
Liver pate	48,000	1.76	84,000	94	177
Meat	17,000	2.41	41,000	11	48
Pickle-mayonnaise	21,000	1.74	36,000	65	78
Potted meat	36,000	1.09	39,000	36	36
Tuna fish salad	29,000	1.56	46,000	76	73
Total items listed above			$ 776,000		
Total inventory, December 31, 1946			$1,056,000		

The working capital position of the company should be reviewed in the light of the inventory picture. Price increases in cheese, and the slow-down in turnover of cheese, as well as of sandwich spreads, have called for a materially greater proportion of working capital.

It is noteworthy that while net working capital has increased $298,000 over December 31, 1945, net working capital exclusive of inventories has decreased from $661,000 at December 31, 1945 to $28,000 at December 31, 1946; a drop of $633,000.

On a smaller scale, a rise in accounts receivable has increased the amount of working capital needed. Net sales in December, 1946 ($1,298,000) are up 2% over December, 1945 ($1,272,000), as increased prices have more than offset reduced volume. However, receivables are up 13%, since collections have lagged. Days' sales on the books, computed on December business, have risen 11%, and the delinquency ratio has climbed from 7% in December, 1945 to 11% in December, 1946.

Of significance in consideration of working capital is the problem of fixed property replacement. Since 1942 the company's application of funds to plant replacement has been as follows:

Year	*Funds Provided by Depreciation*	*Funds Applied to Fixed Assets*	*Net Increase (Decrease) in Working Capital*
1942	$153,000	$108,000	$ 45,000
1943	168,000	111,000	57,000
1944	181,000	108,000	73,000
1945	190,000	247,000	(57,000)
1946	172,000	306,000	(134,000)

As replacements are made at higher price levels, depreciation based on acquisitions in earlier, lower-cost years should continue as in 1945 and 1946 to fall short of providing sufficient funds therefor.

The major change in inventory position and the rise in receivables, coupled with the drain on funds of current plant replacements, makes pertinent a reappraisal of working capital requirements. In 1946 the company was unable to liquidate all bank loans obtained during the peak purchasing season, and for the first time in the history of the company there were general bank loans outstanding at the year-end. This deterioration in quick position developed despite the net addition to funds of $322,000 resulting from the preferred stock refinancing.

Review of Operations

A summary of the operations for the years since the present management took over at the beginning of 1942 follows:

	1946	*1945*	*1944*	*1943*	*1942*
Net sales—			(000 Omitted)		
Cheese—packaged	$13,427	$12,365	$11,711	$11,892	$10,717
Cheese—jars	493	224	311	259	322
Sandwich spreads	2,556	2,671	2,875	1,733	767
Total sales	$16,476	$15,260	$14,897	$13,884	$11,806

Storage and processing revenues	1,194	1,202	1,161	1,033	1,046
Other revenues	227	149	202	166	175
Total sales and revenues	$17,897	$16,611	$16,260	$15,083	$13,027
Costs and expenses	17,230	15,601	15,155	13,969	12,075
Profit from operations	667	1,010	1,105	1,114	952
% to total sales and revenues	3.7%	6.1%	6.8%	7.4%	7.3%
Taxes on income	258	607	785	822	666
Net profit	409	403	320	292	286
% to total sales and revenues	2.2%	2.4%	2.0%	1.9%	2.2%

Quantity sales and average realization for these years are tabulated below:

	1946	*1945*	*1944*	*1943*	*1942*
Cheese—packaged—					
Sales (000 omitted)	$13,427	$12,365	$11,711	$11,892	$10,717
Thousands of pounds	22,230	22,898	23,949	21,900	24,751
Average per pound	$.604	$.540	$.489	$.543	$.433
Cheese—jars—					
Sales (000 omitted)	$ 493	$ 224	$ 311	$ 259	$ 322
Thousands of jars	2,900	1,710	2,508	2,350	2,981
Average per jar	$.170	$.131	$.124	$.110	$.108
Sandwich spreads—					
Sales (000 omitted)	$ 2,556	$ 2,671	$ 2,875	$ 1,733	$ 767
Thousands of gallons	989	1,179	1,288	912	620
Average per gallon	$ 2.584	$ 2.266	$ 2.233	$ 1.900	$ 1.237

Although total dollar sales of packaged cheese and sandwich spreads have increased annually since 1942 because of a consistent rise in average realization, downward trends have developed in quantities of packaged cheese sold since 1942 and quantities of sandwich spreads sold since 1944.

The upward trend of dollar sales in 1942 and 1943 was followed by rising profits from operations. Since 1945, however, profits from operations have decreased, as costs and expenses have mounted. The sharp operating profit drop in 1946 was caused principally by the write-downs of inventory occasioned by the general falling off of sandwich spread market prices.

In view of the trend toward narrowing profit margins, the potential risk in the inventory position and the increased need for working capital, management attention must be focussed on certain basic problems. Inventories—especially those in areas of potential price breaks—should be reviewed to reduce excess stocks. Receivables should be studied and credit and collection procedures reappraised. Budget policies should be installed. A reduction of the inventory risk, a tighter control on receivable collections, and a careful planning of and adherence to expense budgets will aid management in minimizing its additional working fund requirements.

Review Questions

1. What types of reports is the auditor likely to prepare other than the short-form report, or certificate?

2. Why are long-form reports prepared?

3. Does a long-form report always include the auditor's opinion with respect to the financial statements? Explain.

4. Why should the auditor exercise great care in preparing his report?

5. What is meant by the term "newspaper" technique as related to the organization of a long-form report?

6. Why should long, involved sentences be avoided in writing the long-form report?

7. Can the auditor, in his writing, expect to use technical terms as freely as do doctors or lawyers? Explain.

8. What is meant by having a report referenced?

9. What recommendations were made by the Robert Morris Associates concerning the information to be given about trade receivables in a long-form report to be used for credit purposes?

10. What information did the R.M.A. pamphlet recommend be shown concerning property, plant, and equipment?

11. What information can the banker be given in a long-form report which would aid him in estimating the amount and duration of seasonal borrowing?

12. "Including a summarization of the scope of the auditor's examination in a long-form report for credit purposes is both useless and unnecessary." Explain.

Questions on Application of Auditing Standards

13. Write a comment to be included in your client's report explaining why dividend payments on the capital stock have not kept pace with the increase in income in the years since 1948. Your client is a typical manufacturing concern, with total assets of $2,500,000, and its experience in the period since 1948 has been typical.

14. It has been said that if the creation of retained earnings reserves were carried to the logical extreme there would be no free or unappropriated retained earnings on the balance sheet. Discuss.

15. Mr. A. J. Thomas, chief accountant for your client, the Bischoff Construction Co., is known to pride himself on the neatness and accuracy of the records he maintains. After reading the audit report you submitted this year he calls you on the telephone to complain bitterly about an innovation you introduced in the report. He points out that he is extremely careful to be accurate in his work, and that your wanton disregard of accuracy in the financial statements and the schedules in the discussion section of your report not only makes his efforts wasted but also tends to imply that the records have not been accurately maintained.

Inquiry reveals that the cause of his complaint was your decision to prepare

the statements showing even dollars and no pennies, and to round off many figures in schedules contained in the report to the nearest thousand dollars.

How would you attempt to handle the situation?

16. In connection with the opening of wage negotiations with your client, the labor union has published the following statistics:

	1941	*1956*
Average weekly pay	$ 40	$ 65
Annual company profits	30,000	100,000

Your client feels that these figures present a misleading picture of the situation and asks you for your opinion on the matter.

17. A company seeking a short-term bank loan will normally be expected to present a plan for the liquidation of the loan. Would it be proper for the auditor to assist a client in preparing a cash forecast to show the company's plans for repaying the loan? Should the forecast be included in the auditor's long-form report to be presented to the bank? Explain.

Problems

18. In response to a request from a prospective client, criticize briefly, item by item, the form and terminology of the following balance-sheet.

Balance-Sheet of the ABC Company
For the Year Ended December 31, 1956

Assets

Current:	
Cash and related items	$ 11,000
Accounts and notes receivable	758,000
Raw material (market $100,000)	160,000
Work in process, cost	35,000
Finished goods, sales price	315,000
Supplies	78,000
Investments	155,000
Fixed:	
Land, buildings, machinery, patents	1,500,000
Investments	300,000
Treasury Stock	18,000
Deficit	800,000
Total assets	$4,130,000

Liabilities

Current:	
Miscellaneous current liabilities	$ 54,000
Accounts and notes payable	826,000
Fixed:	
Mortgages and bonds	1,000,000
Preferred and common stock	1,700,000
Reserves for depreciation	200,000
Miscellaneous reserves	350,000
Total liabilities	$4,130,000

(A.I.A.)

19. Late in 1947 the Lee Key Faucet Company began to feel the pinch for additional cash, which was fast becoming a common business condition. The need for cash resulted from the combination of increased production and higher costs, which in turn necessitated larger inventories and heavier receivables. Substantial wartime investments in government bonds had already been liquidated to meet the need for additional cash, and additional sources were urgently needed.

The board of directors met to discuss the problem, but their solutions invariably pointed to additional outside financing, to which they were unalterably opposed since they held a pessimistic view of the future. Finally the president of the faucet company made a suggestion, which he admitted was somewhat unorthodox, but seemed about the only way out.

He proposed a program which he estimated would yield $1,000,000 additional cash by the end of 1948, and which involved two distinct steps. First, even though the company was realizing an adequate margin from its sales, he recommended increasing the price of the product from $1.00 per unit to $1.10 per unit. Second, he recommended changing the terms of sale from n/30 to n/15. The directors discussed the program and its ramifications thoroughly, and finally decided to go ahead on it, the changes involved to be made effective January 1, 1948.

On January 10, 1949, while you are in the process of making your regular annual independent examination of the company's accounts, the president asks you to prepare a report on the results of the program he suggested, which he can present to the board. He wishes to present as clear as possible a picture concerning two points:

(*a*) With respect to the change in credit terms: the amount of cash realized by this change, and a comparison of this amount with the amount of cash which the change should have produced, based on 1948 figures.

(*b*) The amount of cash realized through the change in selling price, and a comparison with the results that might reasonably have been expected had there been no change in selling price.

You acquire the following information in anticipation of preparing your report:

	Net Sales		*Lee Key Faucet Co.*
	Industry	*Lee Key Faucet Co.*	*Accounts Receivable at December 31*
1947	$200,000,000	$15,000,000	$1,250,000
1948	220,000,000	15,510,000	740,000

(*a*) Sales are at a constant rate throughout the year.

(*b*) The change in the credit terms did not affect sales.

(*c*) The price change by Lee Key Faucet Co. had no measurable effect on total sales of the industry.

(*d*) Prices in 1948 for the remainder of the industry did not change.

(*e*) Inventories of the company were the same at the beginning and end of the year.

(*f*) Average variable costs in 1948 were $.50 per unit.

Prepare the report which the president has requested. Copies will be distributed to the board members.

20. The president of your client, the Collins Manufacturing Corp., has asked that you prepare a detailed report for him to be used at the next meeting of the board of directors. The report is to be addressed to the board. The president

states that he is not interested in details concerning your examination, but in an analysis of the company's operations. He is particularly interested in having you show why the company had to borrow from the bank in the face of increased profits over the preceding year. Condensed balance sheets and income statements for the company are presented below, along with certain additional information. The statements need not be reproduced in your report.

Collins Manufacturing Corp.
Comparative Balance Sheets, December 31

Assets

	This Year	*Last Year*
Cash	$ 93,628	$ 87,425
Receivables	275,931	241,639
Inventories	421,658	336,918
Plant and equipment	384,123	406,831
Less accumulated depreciation	(204,963)	(215,869)
Other assets	15,629	13,804
	$986,006	$870,748

Equities

Bank loan	$ 50,000	$ —
Accounts payable	165,913	148,319
Accrued liabilities	76,904	68,419
Capital stock	400,000	400,000
Retained earnings	293,189	254,010
	$986,006	$870,748

Collins Manufacturing Corp.
Comparative Income Statements, Year Ended December 31

	This Year	*Last Year*
Sales		
Gimmicks	$ 463,807	$428,931
Doodads	604,361	321,173
Total	$1,068,168	$750,104
Expenses		
Cost of sales—gimmicks	$ 329,686	$301,873
Cost of sales—doodads	334,956	182,939
Administrative expenses	52,316	43,281
Selling expenses	113,814	84,616
Interest	1,241	—
Income taxes	136,976	73,904
Total	$ 968,989	$686,613
Net Income	$ 99,179	$ 63,491
Depreciation included in expenses	$ 27,555	$ 24,316
Dividends declared and paid	60,000	60,000
Cost of fully depreciated machinery retired	38,461	—

21. Using the data and your working papers pertaining to problem 35 of Chapter 14, write the portion dealing with sales and gross margin of a long-form report to be delivered to management.

Appendix A · Internal Control Questionnaire*

[Each question must be answered "yes" or "no" or "N.A." (not applicable). If answer is qualified, key to a footnote.]

Name of client_____

Period covered by examination_____

CASH

ANSWER

Receipts

1. Are the duties or functions of all persons receiving or directly supervising the receiving of cash completely segregated from the following duties or functions?

(*a*) Performing work on customers' sales invoices or credit memos as to:

____ (1) Preparing

____ (2) Checking

____ (3) Recording

____ (4) Summarizing

(*b*) Performing work on customers' ledgers as to:

____ (1) Recording

____ (2) Balancing

____ (*c*) Ageing accounts receivable

____ (*d*) Following up delinquent receivables

____ (*e*) Mailing or delivering statements to customers

____ (*f*) Approving discounts or allowances

____ (*g*) Preparing lists of bad accounts to be written off

____ (*h*) Approving the write-off of bad accounts

* As given in *Case Studies in Internal Control Number 2,* "The Machine Manufacturing Company," published by the American Institute of Accountants.

CASH, *Continued*

ANSWER

Receipts, Continued

___ (*i*) Reconciling bank accounts
___ (*j*) Opening incoming mail
___ (*k*) Preparing vouchers for payment
___ (*l*) Approving vouchers for payment
___ (*m*) Preparing general or payroll checks
___ (*n*) Signing general or payroll checks (or countersigning)
___ (*o*) Mailing or delivering general checks or payroll checks
(*p*) Performing work on notes payable or any other evidences of indebtedness as to:
___ (1) Preparing
___ (2) Signing
___ (*q*) Posting the general ledger
___ (*r*) Recording entries in the purchase journal or invoice register
(*s*) Custody (or access to):
___ (1) Accounts receivable records
___ (2) Securities
___ (3) Notes receivable and/or negotiable collateral
___ (4) Unclaimed wages and dividends
___ (5) Petty cash funds

___ 2. Are listings made of all mail receipts at the time the mail is opened?
___ 3. Are the listings of mail receipts checked to records by someone other than the cashier?
___ 4. Is a receipt issued to the payer for all cash collections other than mail receipts?
___ (*a*) If the receipt is machine-made, is a separate copy of this receipt unavailable to the machine operator?
___ (*b*) If hand-made, is a copy a part of a bound receipt book or is it prenumbered?
___ 5. Is a copy of this receipt retained by the person receiving the cash?
___ 6. Are these retained evidences of receipt checked against the record of cash received by someone other than the person receiving the cash or supervising the receipt of the cash?
___ 7. Are all collections deposited intact with a minimum of delay?
___ 8. Are branch collections deposited in an account subject only to withdrawal by the home office?
___ 9. Does company policy prohibit the use of cash receipts to cash payroll or personal checks?

CASH, *Continued*

ANSWER

Receipts, Continued

___ 10. Are all bank accounts authorized by proper officials?
___ 11. Is the person supervising the receipt of cash responsible for these receipts until they are deposited in the bank?
12. Are duplicate deposit slips:
___ (*a*) Prepared?
___ (*b*) Stamped by the bank?
(*c*) Checked against records of receipts:
___ (1) Listings of mail receipts?
___ (2) Cash book?
___ 13. Are bank charge-backs checked out by someone other than the persons receiving or handling cash?
___ 14. Are undeposited receipts satisfactorily controlled?
___ 15. Are the persons receiving or handling funds properly bonded?

Disbursements

___ 1. Are the duties and functions of all persons preparing checks or directly supervising the preparation of checks completely segregated from the following duties or functions:
___ (*a*) Reconciling bank accounts?
___ (*b*) Mailing or delivering general or payroll checks?
___ (*c*) Preparation of payrolls?
___ (*d*) Approving payrolls for payment?
___ (*e*) Approving time records?
___ (*f*) Approving discounts, allowances, or refunds?
___ (g) Approving vouchers for payment?
___ (*h*) Posting general ledger?
___ (*i*) Recording entries in the purchase journal or invoice register?
(*j*) Custody (or access to):
___ (1) General ledger?
___ (2) Purchase journal or invoice register?
___ (3) Accounts payable ledger?
___ 2. Do only persons authorized to prepare or supervise the preparation of checks have access to blank checks?
___ 3. Are all checks prenumbered?
___ 4. Are all voided checks retained?
___ 5. Are bank accounts reconciled regularly?
6. Do bank reconciliations include:
___ (*a*) Inspection of checks for signatures?
___ (*b*) Inspection of checks for endorsements?

CASH, *Continued*

ANSWER

Disbursements, Continued

___ (*c*) Comparison of checks to check or payroll register for number, payee, date, and amount?

___ (*d*) Accounting for all check numbers?

___ 7. Are checks outstanding for a considerable time properly investigated?

8. Are invoices and supporting evidence:

___ (*a*) Examined by the signer at the time of signing payment check?

___ (*b*) Properly voided or marked to prevent re-use?

___ 9. Are all vouchers approved for payment by someone other than the person requesting payment?

___ 10. Are check protectors used?

___ 11. Are mechanical check signers used?

If used,

___ (*a*) Are keys and signature dies under control?

___ (*b*) Does the person whose signature is mechanically signed approve vouchers passed for payment?

___ (*c*) Are mechanical counting devices on the check signers?

___ (*d*) Are totals of the mechanical counting devices regularly checked against the number of checks written?

___ (*e*) Are persons operating the check signers denied access to blank checks?

___ 12. Are all checks countersigned?

___ 13. Are there limitations on the amounts of checks which require only one signature?

14. Does company policy prohibit:

___ (*a*) The signing or countersigning of checks in advance?

___ (*b*) The signing or countersigning of checks by petty cash custodians?

___ (*c*) Checks drawn to "Cash"?

___ 15. Are all employees paid by check?

___ 16. If payrolls are paid by check, are the checks drawn on a separate bank account operated on an imprest system?

17. If payrolls are paid by cash or check:

___ (*a*) Is a receipt signed by the employee? (An endorsed check is to be considered sufficient receipt.)

___ (*b*) Is proper identification required before payment?

___ (*c*) Is there an independent pay agent?

___ (*d*) If there is no independent pay agent, are occasional pay-offs made by other than the regular employees?

CASH, *Continued*

ANSWER

Disbursements, Continued

18. Is the distribution of employees' pay made by persons other than:
    - ___ (*a*) Foremen to men under their supervision?
    - ___ (*b*) Persons reconciling bank accounts?
    - (*c*) Persons connected with the preparation of:
      - ___ (1) Payrolls?
      - ___ (2) Time records?
      - ___ (3) Checks?

___ 19. Is there proper control over unclaimed wages and salaries?

___ 20. Are all persons signing checks and those assisting in making disbursements properly bonded?

Disbursements—Petty Cash

___ 1. Are all disbursements of currency made from an imprest petty cash fund?

___ 2. Is each petty cash fund in the custody of one person only?

3. Are petty cash vouchers:
   - ___ (*a*) Prepared for each disbursement?
   - ___ (*b*) Prepared for some disbursements?
   - ___ (*c*) Supported?
   - ___ (*d*) In ink or typewritten?
   - ___ (*e*) Dated?
   - ___ (*f*) Fully descriptive of the item paid for?
   - ___ (*g*) Clearly marked to show the amount paid?
   - ___ (*h*) Checked and approved prior to payment by someone other than the petty cash custodian?
   - ___ (*i*) Receipted by the person receiving the cash?
   - ___ (*j*) Satisfactorily voided at the time of payment to prevent further use of the same voucher and its supporting evidences?

___ 4. Do the reimbursing checks show the petty cash custodian as the payee?

___ 5. Are the reimbursing checks endorsed by the petty cash custodian if the checks are drawn to "Cash"?

___ 6. Are the petty cash funds occasionally checked by someone other than the petty cash custodians?

___ 7. Are accounting records unavailable to the petty cash custodian?

___ 8. Does the size of the fund appear to meet the normal requirements of the business and not to be in excess thereof?

___ 9. Are the petty cash custodians properly bonded?

ACCOUNTS RECEIVABLE *and Customers' Deposits*

ANSWER

1. Are the duties and functions of the accounts receivable bookkeepers or person supervising such bookkeepers completely segregated from the following duties or functions:

___ (*a*) Handling any cash or performing any work on cash records?
___ (*b*) Opening incoming mail?
___ (*c*) Mailing or delivering statements to customers?
___ (*d*) Ageing of accounts receivable?
___ (*e*) Checking customers' statements to accounts receivable ledgers?
___ (*f*) Investigation and follow-up of delinquent accounts receivable?
___ (*g*) Settlement of accounts receivable items in question?
___ (*h*) Approving the write-off of bad accounts?
(*i*) Approving:
___ (1) Discounts?
___ (2) Allowances?
___ (3) Refunds?
___ (4) Other credits?

___ 2. Are accounts receivable detail ledgers balanced with the control account each month?

___ 3. Are accounts receivable ledgers balanced to the control account at frequent intervals by someone other than the accounts receivable bookkeeper?

___ 4. Are the accounts aged regularly?

___ 5. Are the aged accounts reviewed by an official?

___ 6. Are detail ledger-keepers rotated occasionally?

___ 7. Are monthly statements sent to all credit customers?

___ 8. Is a check made to determine that no statements are mailed to the address of the accounts receivable bookkeepers other than statements of their own accounts?

___ 9. Are detail balances occasionally confirmed by the customers directly to some employee not in the accounts receivable department?

___ 10. Are bad debts controlled after their write-off?

11. Is approval of an official obtained for:

___ (*a*) Write-off of bad accounts?
___ (*b*) Discounts in excess of regular rates?
___ (*c*) Allowances or adjustments?
___ (*d*) Refunds?

ACCOUNTS RECEIVABLE, *Continued*

ANSWER

___ (*e*) Other credits?
___ 12. Are all credit memos prenumbered?
___ 13. If credits are for returned goods, do routine procedures provide for a check of receivers?

NOTES RECEIVABLE

___ 1. Is the acceptance of notes on sales and loans subject to approval by an official?
___ 2. Are the notes occasionally confirmed directly with the makers?
___ 3. Is a note register used?
___ 4. Is the note register regularly balanced to the control account?
___ 5. Are past-due notes promptly brought to the attention of an official?
___ 6. Do extensions or renewals of notes require specific approval by an authorized person?
___ 7. Are notes and collateral unaccessible to accounting department employees?
___ 8. Are part payments endorsed on the back of the notes?
___ 9. Are all persons having access to notes and collateral under proper bond?
___ 10. Are the safekeeping provisions indicated in the "Securities" section of this check-list maintained for notes?

INVENTORIES

___ 1. Are all incoming items cleared by a receiving department?
___ 2. Does the receiving department deliver or supervise the delivery of each item to the proper stores location?
3. Are materials held in stores:
___ (*a*) Unaccessible to anyone other than stores personnel?
___ (*b*) Stored in an orderly fashion?
___ (*c*) Issued only on properly approved requisitions?
4. Are perpetual stores records maintained on:
___ (*a*) Raw materials?
___ (*b*) Work in process?
___ (*c*) Finished goods?
___ (*d*) Supplies?
___ 5. Does the accounting department control the records of items

INVENTORIES, *Continued*

ANSWER

owned by the company but which are in the hands of others; e.g., goods consigned out, materials being processed outside, goods in warehouses, etc.?

___ 6. Does the accounting department control the records of items owned by other persons but which are in the hands of the company; e.g., goods consigned in, materials being processed for others, etc.?

___ 7. Are functions so separated that employees keeping the stores records have no access to the stock held in stores?

___ 8. Are stores records periodically checked by physical inventories at least once a year?

9. In reference to the physical inventories:

(*a*) Are employees taking the inventories properly:

___ (1) Instructed?

___ (2) Supervised?

___ (*b*) Are prenumbered tags used?

___ (*c*) Are all tags accounted for?

___ (*d*) Are accurate shipper and receiver cut-offs made?

___ (*e*) Do the employees taking the inventories have regular duties other than those of keeping stores or stores records?

___ (*f*) Are counts and descriptions as indicated by the tags checked?

___ (*g*) Are checks made to determine that all items were inventoried?

___ (*h*) Are obsolete items, scrap, customers' property, consigned goods, etc., so indicated?

___ (*i*) Are physical inventory units the same as the units used in pricing the inventory?

___ (1) If not, are checks made of the conversions from physical units to pricing units?

___ (*j*) Are detailed listings checked to original counts?

___ (*k*) Are prices, extensions, and footings of detailed listings checked?

___ (*l*) Are summaries of detailed listings checked?

___ 10. Are discrepancies between stores records and physical inventories promptly investigated, particularly with regard to continued differences in the same items and/or differences of a material nature?

___ 11. Do routine procedures provide for a frequent check of inventories for overstocked and slow items?

SECURITIES

ANSWER

___ 1. Is a safe-keeping agent employed?
___ 2. Is a safe deposit vault used?
___ 3. Are locked and fireproof containers used?
___ 4. Are all securities physically safeguarded by means indicated in questions 1, 2, or 3 above?
___ 5. Are procedures such that two or more persons are necessary to obtain access to the securities?
___ 6. Do routine procedures provide for regular inspection of the securities or direct confirmation with the safekeeping agent?
___ 7. Does the accounting department maintain records indicating complete descriptions of all securities including certificate numbers?
___ 8. Are all securities in the name of the company if not in bearer form?
___ 9. Is control maintained over securities which have been reduced to a book value of zero?
___ 10. Are all persons who have access to securities properly bonded?

PROPERTY, PLANT AND EQUIPMENT

1. Do the proper officials:
___ (*a*) Authorize the purchase of all property, plant and equipment?
___ (*b*) Approve such purchases after purchase if not authorized prior to purchase?
___ 2. Are actual costs checked against authorized costs?
___ 3. Does a definite policy exist to aid the accounting department in distinguishing between capital items and repairs and maintenance, etc.?
4. Are plant ledgers, including records of accumulated depreciation:
___ (*a*) Maintained?
___ (*b*) Reviewed periodically?
___ (*c*) Occasionally checked by actual physical inventories of the assets?
___ (*d*) Balanced regularly to the control accounts?
___ (*e*) Maintained for fully depreciated assets?
___ 5. Are all pieces of equipment marked or tagged with an identifying number of the company corresponding with the identifying number shown in the plant ledger?

PROPERTY, PLANT AND EQUIPMENT—*Continued*

ANSWER

___ 6. Do sales of excess and scrapped equipment require specific authorization by proper officials?

7. Do routine procedures provide for prompt and accurate reporting to the accounting department of:

___ (*a*) Sales of equipment?

___ (*b*) All disposals and retirements of property, plant and equipment?

8. Are tools and small equipment:

___ (*a*) Kept in special locations?

___ (*b*) Accountable for by a few specific employees?

ACCOUNTS PAYABLE

___ 1. Are monthly statements from vendors checked against balances shown by accounts payable detail?

___ 2. Are any differences, noted in 1 above, promptly followed up?

___ 3. Are adjustments resulting from differences approved by an official?

___ 4. Is the accounts payable detail balanced each month to the control account?

___ 5. Are debit balances brought to the attention of an official?

NOTES PAYABLE

1. Do the proper officials authorize all notes payable as to:

___ (*a*) Amounts?

___ (*b*) Purpose for which funds are borrowed?

___ (*c*) Loaning institution?

2. Are note registers:

___ (*a*) Maintained?

___ (*b*) Balanced monthly to control accounts?

___ 3. Are paid notes receipted by the payee upon settlement and retained in the maker's permanent files?

CAPITAL STOCK AND DIVIDENDS

1. Is there an independent:

___ (*a*) Transfer agent?

___ (*b*) Registrar?

___ 2. Is proper control exercised over unissued stock certificates?

___ 3. Are certificates received for transfer or cancellation properly voided?

CAPITAL STOCK AND DIVIDENDS—*Continued*

ANSWER

____ 4. Are evidences of payment of Federal issuance or transfer taxes properly affixed to the certificate stubs?

5. Are stockholders ledgers:

____ (*a*) Maintained?

____ (*b*) Balanced frequently to control accounts?

____ 6. If no ledgers are maintained, are certificate stubs frequently balanced to control accounts?

____ 7. Is proper control exercised over dividend payments?

____ 8. Are unclaimed dividends properly controlled?

SALES

____ 1. Are orders approved by the credit department before they are accepted?

____ 2. Is the credit function completely separated from other functions, particularly cash, sales, and accounting functions?

3. Are shippers:

____ (*a*) Used?

____ (*b*) Used on all items leaving plant?

____ (*c*) Prenumbered?

____ 4. Are shippers checked to customers' orders for quantity and descriptions to determine that items shipped are those ordered?

5. Are invoices:

____ (*a*) Prepared on all sales?

____ (*b*) Prenumbered?

____ 6. Is a check made to determine that there are notices of shipment for all invoices and invoices for all notices of shipment?

____ 7. Are invoices checked to notices of shipment for quantity and descriptions to determine that items shipped are being billed?

____ 8. Is a check made to determine that all invoices are recorded and all invoice numbers accounted for?

9. Are invoices checked for:

____ (*a*) Extensions?

____ (*b*) Footings?

____ (*c*) Terms?

____ (*d*) Prices?

____ 10. Are partial shipments subject to the same procedures as regular sales including relief of inventory for the cost thereof?

____ 11. Do miscellaneous sales follow the same procedures as regular sales, e.g., sales of equipment, sales of scrap, and sales to employees, etc.?

SALES, *Continued*

ANSWER

___ 12. Are sales summaries prepared, independent of the accounting department, which may be used as a check on recorded sales?

PURCHASES

___ 1. Is there a separate and distinct purchasing department?
___ 2. Is the purchasing function completely separated from other functions, particularly accounting and shipping and receiving functions?
___ 3. Are purchase requisitions prepared?
___ 4. If purchase requisitions are prepared are they approved by the department head?
___ 5. If purchase requisitions are not prepared, are all purchases approved by someone other than the purchasing department?
6. Are purchase orders:
___ (*a*) Used?
___ (*b*) Used for all purchases?
___ (*c*) Prenumbered?
___ (*d*) Copy sent to the accounting department?
___ 7. Are all purchase order numbers accounted for in routine procedures?
8. Are receivers:
___ (*a*) Used?
___ (*b*) Used for all items received in the plant?
___ (*c*) Prenumbered?
___ (*d*) Copy sent to the accounting department?
___ 9. Are all receiver numbers accounted for in routine procedures?
___ 10. Is a record made of all items rejected by the receiving department or items later returned to the vendors?
11. Are vendors' invoices checked:
___ (*a*) Against purchase orders for terms, prices and quantities?
___ (*b*) Against receivers for items and quantities received?
___ (*c*) For extensions and footings?
___ 12. Do the persons responsible for making the checks listed in question 11 above indicate in some manner on the invoices that the checks have been made?
___ 13. Is a check made of freight charges?
___ 14. Does the accounting department match purchase orders, receivers, and vendors' invoices before preparing the voucher for payment?

PURCHASES, *Continued*

ANSWER

___ 15. Are unmatched receivers, purchase orders, and vendors' invoices periodically investigated?

___ 16. Is proper control and coordination exercised over purchase and sales invoices in cases where merchandise is purchased for direct shipment to company's customers?

___ 17. Do employee accommodation purchases follow the same procedures as ordinary purchases?

___ 18. Are all distributions reviewed or sufficiently tested by someone other than the person making original distribution?

PAYROLL

1. Are time cards:
___ (*a*) Used?
___ (*b*) Prepared by mechanical devices?
___ (*c*) Initialed by an authorized person for changes?
___ (*d*) Approved by foremen?
___ (*e*) Approved by timekeeper?
___ (*f*) Checked for computations of hours?
2. Are job time tickets:
___ (*a*) Used?
___ (*b*) Approved by foremen?
___ (*c*) Reconciled with time cards?
3. Are checks made of:
___ (*a*) Rates paid?
___ (*b*) Extensions and footings?
___ (*c*) Deductions?
4. Is written authorization required for all:
___ (*a*) Initial wage and salary rates?
___ (*b*) Changes in these initial rates?
___ (*c*) Dismissals?
5. Is the payroll function separate from that of:
___ (*a*) Timekeeping?
___ (*b*) Bank reconciliation?

___ 6. Are payroll duties frequently shifted among payroll personnel?

___ 7. Are all payrolls and advances subject to the same routine procedures?

___ 8. Are all payroll distributions reviewed or sufficiently tested by someone other than the person making the original distribution?

PAYROLL, *Continued*

ANSWER

___ 9. Is the accumulated time incurred on individual jobs checked to original estimates?

___ (*a*) Are differences of a material nature promptly investigated?

___ 10. Are "floor-checks" of personnel made?

___ 11. Are adequate personnel records maintained including a specimen signature of each employee?

GENERAL

___ 1. Is there an internal audit department or auditor?

___ 2. Are reports and procedures of the internal audits reviewed by us?

3. Are all books of account:

___ (*a*) Appropriate and sufficient for the nature of the company's business?

___ (*b*) Balanced monthly?

4. Are all general journal entries:

___ (*a*) Properly supported?

___ (*b*) Approved by the chief accountant or comptroller prior to entry in the journal?

___ 5. Are income and expense accounts periodically reviewed by a responsible official?

___ 6. Do monthly statements adequately point up unusual situations?

___ 7. Does a current organization chart exist?

___ (*a*) Do we have a copy of this chart?

___ 8. Are the duties and functions throughout the company governed by manuals of operating procedures?

___ 9. Do all officers and employees take vacations?

___ 10. During the vacations are the duties and functions of the officers and employees performed by other persons?

___ 11. Is the insurance coverage periodically reviewed?

Appendix B · McKesson & Robbins Fraud: A Milestone*

SUMMARY OF FINDINGS AND CONCLUSIONS

This is a report on a proceeding pursuant to our order of December 29, 1938 under Section 21 (a) of the Securities Exchange Act of 1934. The order was based upon evidence that the information set forth in the registration statement and annual reports of McKesson & Robbins, Incorporated, especially the financial statements and schedules included therein which were prepared and certified by Price, Waterhouse & Co., was materially false and misleading. We stated our purpose to be to determine:

(1) the character, detail and scope of the audit procedure followed by Price, Waterhouse & Co. in the preparation of the financial statements included in the said registration statement and reports;

(2) the extent to which prevailing and generally accepted standards and requirements of audit procedure were adhered to and applied by Price, Waterhouse & Co. in the preparation of the said financial statements; and

(3) the adequacy of the safeguards inhering in the said generally accepted practices and principles of audit procedure to assure reliability and accuracy of financial statements.

As directed, hearings commenced on January 5, 1939 and continued, with some necessary adjournments, through April 25, 1939. Throughout the hearings Price, Waterhouse & Co. were represented by counsel, as were all witnesses who desired counsel. Opportunity was accorded such counsel to examine witnesses called by the Commission and to call their own witnesses. In all, 46 witnesses were examined. Of these, 9 were partners and employees of Price, Waterhouse & Co.; 12 were accountants of other firms called to testify as experts; 1 represented the Controllers Institute of America and 1 the American Institute of Consulting Engineers; 2 were

* Excerpts from the *Report on Investigation* of the Securities and Exchange Commission in the matter of McKesson & Robbins, Inc., December, 1940.

from S. D. Leidesdorf & Co., accountants for the Trustee of McKesson & Robbins; 1 was a person who prepared many of the fictitious documents; 8 were employees of McKesson & Robbins; 11 were McKesson directors; and the last was a Commission investigator, who was called to identify certain documents. Throughout, Price, Waterhouse & Co., the witnesses, and their counsel extended the fullest cooperation in facilitating the conduct of the proceedings. The record of the public hearings is contained in 4587 pages of testimony and 285 exhibits comprising in excess of 3000 pages.

A. Summary of Principal Facts

The securities of McKesson & Robbins, Incorporated (Maryland) were listed and traded on the New York Stock Exchange and registered under the Securities Exchange Act of 1934. Financial statements of the Corporation and its subsidiaries for the year ended December 31, 1937 (the last before the disclosure of the fraud hereinafter described) certified by Price, Waterhouse & Co., filed with this Commission and the New York Stock Exchange, and issued to stockholders reported total consolidated assets in excess of $87,000,000. Approximately $19,000,000 of these assets are now known to have been entirely fictitious. The fictitious items consisted of inventories, $10,000,000; accounts receivable, $9,000,000; and cash in bank, $75,000; and arose out of the operation at the Bridgeport offices of a wholly fictitious foreign crude drug business shown on the books of the Connecticut Division of McKesson & Robbins, Incorporated (Maryland) and McKesson & Robbins, Limited (Canada), one of its subsidiaries. For the year 1937, fictitious sales in these units amounted to $18,247,020.60 on which fictitious gross profit of $1,801,390.60 was recorded. At the time of the exposure of the fraud on or about December 5, 1938 the fictitious assets had increased to approximately $21,000,000.

The fraud was engineered by Frank Donald Coster, president of McKesson & Robbins since its merger with Girard & Co., Inc. in November 1926. In reality Coster was Philip M. Musica who, under the latter name, had been convicted of commercial frauds. In carrying out the fraud Coster, in the later years, was assisted principally by his three brothers: George E. Dietrich, assistant treasurer of the Corporation, who was in reality George Musica; Robert J. Dietrich, head of the shipping, receiving, and warehousing department of McKesson & Robbins at Bridgeport, Connecticut, who was in reality Robert Musica; and George Vernard, who was in reality Arthur Musica and who managed the offices, mailing addresses, bank accounts and other activities of the dummy concerns with whom the McKesson Companies supposedly conducted the fictitious business.

To accomplish the deception, purchases were pretended to have been

made by the McKesson Companies from five Canadian vendors, who thereafter purportedly retained the merchandise at their warehouses for the account of McKesson. Sales were pretended to have been made for McKesson's account by W. W. Smith & Company, Inc. and the goods shipped directly by the latter from the Canadian vendors to the customers. Payments for goods purchased and collections from customers for goods sold were pretended to have been made by the Montreal banking firm of Manning & Company also for the account of McKesson. W. W. Smith & Company, Inc., Manning & Company, and the five Canadian vendors are now known to have been either entirely fictitious or merely blinds used by Coster for the purpose of supporting the fictitious transactions.

Invoices, advices, and other documents prepared on printed forms in the names of these firms were used to give an appearance of reality to the fictitious transactions. In addition to this manufacture of documents, a series of contracts and guaranties with Smith and Manning and forged credit reports on Smith were also utilized. The foreign firms to whom the goods were supposed to have been sold were real but had done no business of the type indicated with McKesson.

The fictitious transactions originated early in the life of Girard & Co., Inc., Coster's predecessor concern, incorporated on January 31, 1923 and increased until they reached the proportions mentioned above. The manner of handling the transactions described above was the one in vogue since the middle of 1935. Prior to that time the fictitious goods were supposed to have been physically received at and reshipped from the Bridgeport plant of McKesson. And prior to 1931 McKesson made actual cash payments directly for the fictitious purchases, which at that time were supposed to have been made from a group of domestic vendors, but recovered a large part of this cash purportedly as collections on the fictitious sales. The change from using actual cash to the supposed clearance through Manning & Company was not effected abruptly but for some time after 1931 both systems were used. The Canadian vendors, however, were used only in connection with the Manning clearance system. From the report of the accountant for the Trustee in reorganization of McKesson & Robbins, Incorporated, it appears that out of an actual cash outgo from the McKesson Companies in connection with these fictitious transactions of $24,777,851.90 all but $2,869,482.95 came back to the McKesson Companies in collection of fictitious receivables or as cash transfers from the pretended bank of Manning & Company.

B. Summary of Conclusions as to Individual Auditing Procedures

Our conclusions as to the individual auditing procedures are developed in detail in section V of our report. The full discussion of each topic

should be consulted for the basis and complete statement of the conclusions which we here summarize.

1. Appointment and Responsibility of Auditors; Determination of the Scope of the Engagement

All appointments of Price, Waterhouse & Co. as auditors for Girard & Co., Inc. and the successor McKesson Companies were made by letter from Coster or the comptroller, McGloon, near the close of the year to be audited. The testimony of the directors is that with rare exceptions members of the board had no part in arranging for the audit and did not know the content either of the letters of engagement or of the long form report addressed to Coster, in which the character of the work was set forth.

While the appointment of Price, Waterhouse & Co. and the method of determining the scope of the engagement in this case was in accord with generally accepted practice, we do not feel that it insures to the auditor, in all cases, that degree of independence which we deem necessary for the protection of investors. Adoption of the following program, we feel, would aid materially in correcting present conditions:

1. Election of the auditors for the current year by a vote of the stockholders at the annual meeting followed immediately by notice to the auditors of their appointment.

2. Establishment of a committee to be selected from non-officer members of the board of directors which shall make all company or management nominations of auditors and shall be charged with the duty of arranging the details of the engagement.

3. The certificate (sometimes called short-form report or opinion) should be addressed to the stockholders. All other reports should be addressed to the board of directors, and copies delivered by the auditors to each member of the board.

4. The auditors should be required to attend meetings of the stockholders at which their report is presented to answer questions thereon, to state whether or not they have been given all the information and access to all the books and records which they have required, and to have the right to make any statement or explanation they desire with respect to the accounts.

5. If for any reason the auditors do not complete the engagement and render a report thereon, they shall, nevertheless, render a report on the amount of work they have done and the reasons for non-completion, which report should be sent by the company to all stockholders.

In approaching his work with respect to companies which file with us or in which there is a large public interest, the auditor must realize that, regardless of what his position and obligations might have been when re-

porting to managers or to owner-managers, he must now recognize fully his responsibility to public investors by including the activities of the management itself within the scope of his work and by reporting thereon to investors. The adoption of a program such as that outlined above should serve to secure recognition of these newly emphasized obligations of the auditor to public investors.

2. Organization and Training of Staff

We have found that there is great similarity among accounting firms in the organization of the staff and assignments to engagements. We deplore, as do accounting firms, the necessity for recruiting large numbers of temporary employees during a very short busy season. This condition and the lack of training in the firm's methods which it ordinarily entails are inimical to attaining the best results from the auditor's services. A major improvement in this condition could be made by the general adoption by corporations of the natural business year for accounting purposes. The recruiting of temporary employees was more aggravated in Price, Waterhouse & Co. than in other comparable firms whose representatives testified as experts. This situation, coupled with the fact that Price, Waterhouse & Co. had a higher ratio of both permanent and peak staff per partner than other firms, leads us to the conclusion that Price, Waterhouse & Co. partners could not have given adequate attention to the training, development, and supervision of their staff.

3. Investigation of New Clients

The facts of this case suggest that for new and unknown clients some independent investigation should be made of the company and of its principal officers prior to undertaking the work. Such an inquiry should provide a valuable background for interpreting conditions revealed during the audit or, in extreme cases, might lead to a refusal of the engagement.

4. Review of the Client's System of Internal Check and Control

We are convinced by the record that the review of the system of internal check and control at the Bridgeport offices of McKesson & Robbins was carried out in an unsatisfactory manner. The testimony of the experts leads us to the further conclusion that this vital and basic problem of all audits for the purpose of certifying financial statements has been treated in entirely too casual a manner by many accountants. Since in examinations of financial statements of corporations whose securities are publicly owned the procedures of testing and sampling are employed in most cases, it appears to us that the necessity for a comprehensive knowledge of

the client's system of internal check and control cannot be overemphasized.

5. Cash

The record is clear that the cash work performed on this engagement by Price, Waterhouse & Co. conformed in scope to the then generally accepted standards of the profession. It is equally clear to us that prior to this case many independent public accountants depended entirely too much upon the verification of cash as the basis for the whole auditing program and hence as underlying proof of the authenticity of all transactions. Where, as here, during the final three years of the audit, physical contact with the operations of a major portion of the business was limited to examination of supposed documentary evidence of transactions carried on completely off-stage through agents unknown to the auditors save in connection with the one engagement, it appears to us that the reliability of these agents must be established by completely independent methods. Confirmation of the bank balance under these circumstances was proven in this case to be an inadequate basis for concluding that all the transactions were authentic.

6. Accounts Receivable

Viewed as a whole the audit program for accounts receivable as used by Price, Waterhouse & Co. conformed to then generally accepted procedures for an examination of financial statements although confirmation of the accounts was not included in the program. The facts of this case, however, demonstrate the utility of circularization and the wisdom of the profession in subsequently adopting confirmation of accounts and notes receivable as a required procedure ". . . wherever practicable and reasonable, and where the aggregate amount of notes and accounts receivable represents a significant proportion of the current assets or of the total assets of a concern. . . ."

7. Intercompany Accounts

The record indicates that it is not enough for auditors to reconcile inter-company balances and that valuable insight into the company's manner of doing business may be gained by a review of the transactions passed through such accounts during the year. Best practice we believe requires the latter procedure. In this case the recommended procedure, although employed to some extent, was not applied in a thoroughgoing and penetrating manner.

8. Inventories

Price, Waterhouse & Co.'s audit program for the verification of inventories was essentially that which was prescribed by generally accepted

auditing practice for the period. However, we find that a substantial difference of opinion existed among accountants during this time as to the extent of the auditors' duties and responsibilities in connection with physical verification of quantities, quality, and condition. Price, Waterhouse & Co., in common with a substantial portion of the profession, took the position that the verification of quantities, quality, and condition of inventories should be confined to the records. There was, however, a substantial body of equally authoritative opinion which supported the view, which we endorse, that auditors should gain physical contact with the inventory either by test counts, by observation of the inventory taking, or by a combination of these methods. Meticulous verification of the inventory was not needed in this case to discover the fraud. We are not satisfied, therefore, that even under Price, Waterhouse & Co.'s views other accountants would condone their failure to make inquiries of the employees who actually took the inventory and to determine by inspection whether there was an inventory as represented by the client. We commend the action of the profession in subsequently adopting, as normal, procedures requiring physical contact with clients' inventories.

9. Other Balance Sheet Accounts

(*a*) The testimony in respect to the auditing of plant accounts suggests that some accountants, including Price, Waterhouse & Co., could, with advantage, devote more attention to physical inspection than has been general practice with them in the past.

(*b*) The work in respect to liabilities was in accord with generally accepted practice but suggests the desirability of independent inquiry when large purchases are made from a very few otherwise unknown suppliers.

(*c*) The record demonstrates the necessity of a thorough understanding of the client's tax situation which apparently was not obtained by Price, Waterhouse & Co. in regard to the application of the Canadian law.

10. Profit and Loss Accounts

We are of the opinion that such analyses of profit and loss accounts as were made were applied to improper combinations of departments with the result that significant relationships were concealed. It is our conclusion that the independent accountant is derelict in his duty if he does not insist upon having proper analyses available for his review. It is our opinion that best practice supports this view.

11. The Wholesale Houses

It must be emphasized again that although the bulk of this report deals with the two units in which the fraud occurred, which were under the direct charge of the Company's principal officer, some material bearing on the work in the other units, mostly wholesale houses, was introduced

at the hearings. As to this portion of the audit, which constituted the larger part of the Price, Waterhouse & Co. engagement, covering for 1937 approximately 70% of the reported assets and 85% of the net sales, and which occupied approximately 97% of the auditors' time, it appears that the work in these other units was carried out in a thorough fashion in accordance with generally accepted auditing practice prevailing during the periods involved, including limited inspections of inventories but no confirmation of accounts and notes receivable.

12. Review Procedure

The mechanics of the review procedure as carried out by Price, Waterhouse & Co. on this engagement were substantially the same as those of the majority of accounting firms. However, it is our opinion that the partner in charge in this case was not sufficiently familiar with the business practices of the industry in question and was not sufficiently concerned with the basic problems of internal check and control to make the searching review which an engagement requires.

13. The Certificate

The form of certificate used by Price, Waterhouse & Co. conformed to generally accepted practice during the period of the Girard-McKesson engagement. We are of the opinion that the form of the accountant's certificate should be amended to include in addition to the description of the scope of the audit a clear certification that the audit performed was, or was not, adequate for the purpose of expressing an independent opinion in respect to the financial statements. If any generally accepted procedures are omitted these should be named together with the reasons for their omission. Exceptions to the scope of the audit or to the accounts must be clearly designated as "exceptions."

14. Circumstances Available for the Auditors' Observations in the Procedures and Records of the Girard-McKesson Companies Which Might Have Led to the Discovery of the Fraud

The firm of Price, Waterhouse & Co. for fourteen years served as independent public accountants for F. Donald Coster's enterprises. Within range of the procedures which they followed there were numerous circumstances which, if they had been recognized and carefully investigated by resourceful auditors, should have revealed the gross inflation in the accounts.

We can not and do not say that every one of the items should have been recognized by the auditors as significant and, if investigated, would have led to the exposure of the gross falsification of the financial statements. It is also quite conceivable that for a time many could have been and perhaps were explained away. We do believe, however, that the number

of items and the period of time over which some of them repeated themselves gave ample opportunity for detection by alert and inquisitive auditors.

C. Conclusion

In conclusion we reproduce the summary from the last section of our report:

"Our conclusion based upon the facts revealed by the record, the testimony of the expert witnesses, and the writings of recognized authorities is that the audits performed by Price, Waterhouse & Co. substantially conformed, in form, as to the scope and procedures employed, to what was generally considered mandatory during the period of the Girard-McKesson engagements. Their failure to discover the gross overstatement of assets and of earnings is attributable to the manner in which the audit work was done. In carrying out the work they failed to employ that degree of vigilance, inquisitiveness, and analysis of the evidence available that is necessary in a professional undertaking and is recommended in all well-known and authoritative works on auditing. In addition, the overstatement should have been disclosed if the auditors had corroborated the Company's records by actual observation and independent confirmation through procedures involving regular inspection of inventories and confirmation of accounts receivable, audit steps which, although considered better practice and used by many accountants, were not considered mandatory by the profession prior to our hearings.

"Price, Waterhouse & Co. maintain that a balance sheet examination is not intended and cannot be expected to detect a falsification of records concealing an inflation of assets and of earnings if accomplished by a widespread conspiracy carried on by the president of a corporation, aided by others within and without the recognized ranks of a corporation's operating personnel, and that no practical system of internal check can be devised the effectiveness of which cannot be nullified by criminal collusion on the part of a chief executive and key employees. Such cases are so rare, in their opinion, that there is no economic justification for the amount of auditing work which would be required to increase materially the protection against it.

"The inference to be drawn from this position and from statements made by others in connection with this case is that a detailed audit of all transactions as distinguished from an examination based on tests and samples would have been necessary to reveal the falsification. However, as we view the situation in this case, a detailed audit of all transactions carried out by the same staff would merely have covered a larger volume of the same kinds of fictitious documents and transactions. While this might

have brought under review more instances of what we have listed as circumstances suggesting further investigation, there is little ground for believing that this alone would have raised any greater question as to the authenticity of the transactions.

"Moreover, we believe that, even in balance sheet examinations for corporations whose securities are held by the public, accountants can be expected to detect gross overstatements of assets and profits whether resulting from collusive fraud or otherwise. We believe that alertness on the part of the entire staff, coupled with intelligent analysis by experienced accountants of the manner of doing business, should detect overstatements in the accounts, regardless of their cause, long before they assume the magnitude reached in this case. Furthermore, an examination of this kind should not, in our opinion, exclude the highest officers of the corporation from its appraisal of the manner in which the business under review is conducted. Without underestimating the important service rendered by independent public accountants in their review of the accounting principles employed in the preparation of financial statements filed with us and issued to stockholders, we feel that the discovery of gross overstatements in the accounts is a major purpose of such an audit even though it be conceded that it might not disclose every minor defalcation. In short, Price, Waterhouse & Co.'s failure to uncover the gross overstatement of assets and of earnings in this case should not, in our opinion, lead to general condemnation of recognized procedures for the examination of financial statements by means of tests and samples.

"We do feel, however, that there should be a material advance in the development of auditing procedures whereby the facts disclosed by the records and documents of the firm being examined are to a greater extent checked by the auditors through physical inspection or independent confirmation. The time has long passed, if it ever existed, when the basis of an audit was restricted to the material appearing in the books and records. For many years accountants have in regularly applied procedures gone outside the records to establish the actual existence of assets and liabilities by physical inspection or independent confirmation. As pointed out repeatedly in this report, there are many ways in which this can be extended. Particularly, it is our opinion that auditing procedures relating to the inspection of inventories and confirmation of receivables, which, prior to our hearings, had been considered optional steps, should, in accordance with the resolutions already adopted by the various accounting societies, be accepted as normal auditing procedures in connection with the presentation of comprehensive and dependable financial statements to investors.

"We have carefully considered the desirability of specific rules and regulations governing the auditing steps to be performed by accountants in

certifying financial statements to be filed with us. Action has already been taken by the accounting profession adopting certain of the auditing procedures considered in this case. We have no reason to believe at this time that these extensions will not be maintained or that further extensions of auditing procedures along the lines suggested in this report will not be made. Further, the adoption of the specific recommendations made in this report as to the type of disclosure to be made in the accountant's certificate and as to the election of accountants by stockholders should insure that acceptable standards of auditing procedure will be observed, that specific deviations therefrom may be considered in the particular instances in which they arise, and that accountants will be more independent of management. Until experience should prove the contrary, we feel that this program is preferable to its alternative—the detailed prescription of the scope of and procedures to be followed in the audit for the various types of issuers of securities who file statements with us—and will allow for further consideration of varying audit procedures and for the development of different treatment for specific types of issuers."

Appendix C · Extensions of Auditing Procedure*

TO THE MEMBERS OF THE
AMERICAN INSTITUTE OF ACCOUNTANTS:

GENTLEMEN:

Under date of May 9, 1939, the council of the American Institute of Accountants adopted a report submitted by the special committee on auditing procedure entitled "Extensions of Auditing Procedure," and at the same time it was anticipated that the committee would make a supplemental report at the September meeting. The report of May 9th emphasized that it was the ultimate responsibility of the independent certified public accountant to adopt such procedures as in his professional judgment he deemed appropriate, but recommended that certain additional procedures regarding inventories and accounts receivable should be considered as generally accepted practice. It further recommended that, where these additional procedures regarding inventories and accounts receivable had not been undertaken, that fact should be disclosed in the auditors' report or opinion.

The action of the council received widespread support of state organizations of certified public accountants, and the recommendations evoked the hearty approval of investors, credit grantors, the press, and the public.

During the four months which elapsed between the issuance of the report and the September meeting, the committee had considerable discussion and correspondence with informed people, both within and without the profession, and held a number of meetings. While the recommended additional procedures had the united support of independent accountants, it was evident that there was some misconception as to the meaning intended to be conveyed by the term "physical tests" as applied to inventory quantities, that considerable misunderstanding had arisen as to

* Originally published by the American Institute of Accountants under this title, this material is now incorporated in the booklet *Codification of Statements on Auditing Procedure.*

the responsibility which the auditor might be assuming, and that the recommended reference in the auditors' report of opinion to the omission of such procedures had been misconstrued.

In its supplemental report presented to council under date of September 18th, the committee explained the term "physical tests" and indicated that in his capacity as auditor the independent certified public accountant could properly attend at the inventory-taking and observe the methods of taking the inventory, making in conjunction therewith such suitable inquiries or requiring such test checks under his observation as he deemed advisable, and that such a program was within the meaning of the term "physical tests."

The auditor's duty was increased in that the additional procedures were adopted as generally accepted practice wherever they are practicable and reasonable, but beyond this the auditor's responsibility remained unchanged. The responsibility of the management for taking proper inventories was again emphasized.

The committee reiterated its recommendation of May 9th that, where exceptions were required, such exceptions should be expressed clearly and unequivocally. However, where exception was not called for under the terms of the report, it was felt that no good purpose would be served by requiring negative explanations, because discussion and experience in the meantime had demonstrated that negative references in the auditors' report gave rise to misconception in that they tended to convey implications of reservations or exceptions where none existed or was intended. In other words, they had the effect of casting an unwarranted cloud on the statements.

The council at its meeting on September 18, 1939, adopted the supplemental report of the committee which, after discussion at the meeting of the Institute on September 19th, was approved. The executive committee was authorized and instructed by council to coördinate the two reports into one document and to distribute it to the membership. This document is submitted herewith; it supersedes the report of May 9, 1939.

Respectfully submitted,

EXECUTIVE COMMITTEE

By: JOHN L. CAREY, *Secretary.*

October 18, 1939.

REPORT OF MAY 9, 1939, AS MODIFIED AND APPROVED AT THE ANNUAL MEETING, SEPTEMBER 19, 1939

Following the adoption by council on May 9, 1939, of the report of the special committee on auditing procedure entitled "Extensions of

Auditing Procedure" and the approval at the annual meeting of the supplementing and interpreting report of the same committee dated September 18, 1939, the executive committee was instructed by council to coördinate the two reports into one document and to distribute it. There is presented herewith the modified report which deals with the following matters:

Examination of inventories
Examination of receivables
Appointment of independent certified public accountants
Form of independent certified public accountants' report

Auditing procedures and related matters dealt with herein relate to those cases in which financial statements are accompanied by a report and opinion of an independent certified public accountant. Accordingly, that which follows should be read in the light of this limitation.

At the outset it is pertinent to state that, since the late disclosure of conditions existing in exceptional cases, certified public accountants have been considering possible implications which may arise therefrom in relation to their practice. The committee desires to state its opinion that auditing procedure has kept, and continues to keep, pace with the growth and development of industry and that the well established custom of making test checks of accounting records and related data and, beyond that, reliance upon the system of internal check and control after investigation of its adequacy and effectiveness has with very few exceptions proved sufficient for its purpose. Because of public interest and discussion in the press, there is a question now before the profession as to whether its procedures shall be extended. In order to consider the question intelligently there must first be some general understanding of certain fundamentals.

In the performance of his duties as auditor, the independent certified public accountant holds himself out as one who is proficient in accounting practice and auditing procedure. The function of the independent certified public accountant is to examine a concern's accounting records and supporting data, in certain matters to obtain outside confirmations, and to require and consider supplementary explanations and information from the management and employees, to the extent necessary to enable him to form an opinion as to whether or not the financial statements as submitted present fairly the position and the results of periodic operations. Generally speaking, his function is limited to reporting upon situations arising out of business transactions that have taken place in the past. In no sense is he an insurer or guarantor. In offering his opinion, the independent certified public accountant assumes heavy responsibilities. He must be skilled in his professional work and must have made a reason-

able examination of the accounts in order to warrant his expression of an opinion. He must state his opinion clearly and unequivocally.

Management itself has the direct responsibility for the maintenance of an adequate and effective system of accounts, for the proper recording of transactions in the books of account, and for the safeguarding of the assets of a concern. It is also charged with the primary responsibility to stockholders and to creditors for the substantial accuracy and adequacy of statements of position and operations.

In order to qualify himself to carry out his function, the independent certified public accountant has completed a rigorous course of professional study and training as a background to the essential practical experience he must obtain, for it is only by study, training, and practical experience that the independent auditor acquires skill in accounting and related matters. In the ordinary course of his day-to-day practice, he encounters a wide range of judgment on the part of management, varying from true objective judgment to the occasional extreme of deliberate misstatement. He is retained to examine and report upon the affairs of a concern because, through his training and experience, he has become not only skilled in accounting and auditing but has acquired the ability and habit of considering dispassionately and independently the facts recorded in books of account or otherwise disclosed by his examination and because, as a result, his opinion provides reasonable assurance that a fair and adequate presentation of pertinent information has been made in the financial statements.

The independent auditor must also exercise his best judgment in determining the scope of his examination and in deciding whether the interests of stockholders and creditors justify the time and expense involved in the extension of any particular line of inquiry. Experience shows that, with few exceptions, the personnel of business organizations is honest. The ordinary examination incident to the issuance of financial statements accompanied by a report and opinion of an independent certified public accountant is not designed to discover all defalcations, because that is not its primary objective, although discovery of defalcation frequently results. In a well organized concern the principal reliance for the detection of such irregularities is placed upon the maintenance of an adequate system of accounting records with appropriate internal check and control. It is the duty of the independent auditor to review the system of internal check and accounting control so as to determine the extent to which he considers that he is entitled to rely upon it. To exhaust the possibility of exposure of all cases of dishonesty or fraud, the independent auditor would have to examine in detail all transactions. This would entail a prohibitive cost to the great majority of business enterprises—a cost which would pass all

bounds of reasonable expectation of benefit or safeguard therefrom, and place an undue burden on industry.

In carrying out his work the independent certified public accountant must always be on his guard against collusive fraud and be alert in detecting any sign of such collusion. However, on the basis of his examination by tests and checks, he relies upon the integrity of the client's organization unless circumstances are such as to arouse suspicion, in which case he must extend his procedures to determine whether or not such suspicions are justified.

The independent certified public accountant should not express the opinion that financial statements present fairly the position of the company and the results of its operations, in conformity with generally accepted accounting principles, when his exceptions are such as to negative the opinion, or when the examination has been less in scope than he considers necessary. In such circumstances, the independent certified public accountant should limit his report to a statement of his findings and, if appropriate, his reasons for omitting an expression of opinion.

Turning now to consideration of the specific matters referred to at the beginning of this report, it may be noted in passing that in some cases independent certified public accountants have attended at the inventory-taking or observed physical test checks of inventories and have confirmed receivables by direct communication with debtors. Such steps, however, have usually been undertaken as additional procedures under arrangement with the client, or where the accountant thought them essential or desirable in a particular case.

It is believed that recognition should be given to the widespread demand for an extension of auditing procedures with regard to inventories and receivables. However, it should be noted that additional expense to business will be involved in the added procedures.

Inventories

Added steps may well be taken to give greater assurance with regard to inventories. The extent of such additional procedures will necessarily vary with the circumstances, because the independent auditor is justified in giving consideration to the effectiveness of the internal check and control as applied not only to book records, but also to the procedure of taking physical inventories. But, however extensive these may be, the training and experience of an independent certified public accountant do not qualify him as a general appraiser, valuer, or expert in materials. The public should understand that, while he can in his capacity as an auditor undertake additional procedures as to inventories, such procedures do not invest his opinion with a degree of authority which he does

not claim for it or impose upon him a measure of responsibility which the nature of his work does not justify. Such procedures are only for the purpose of satisfying himself as to the credibility of the representations of the management regarding quantity and condition.

Taken in consideration with the foregoing discussion of auditing procedures, the following recommendations are made concerning inventories:

(*A*) That hereafter, where the independent certified public accountant intends to report over his signature on the financial statements of a concern in which inventories are a material factor, it should be generally accepted auditing procedure that, in addition to making auditing tests and checks of the inventory accounts and records, he shall, wherever practicable and reasonable, be present, either in person or by his representatives, at the inventory-taking and by suitable observation and inquiry satisfy himself as to the effectiveness of the methods of inventory-taking and as to the measure of reliance which may be placed upon the client's representations as to inventories and upon the records thereof. In this connection the independent certified public accountant may require physical tests of inventories to be made under his observation.

In cases where the inventory is determined solely by means of a physical inventory at the end of the accounting period (or at a date prior or subsequent thereto but within a reasonable time thereof, with adequate records supporting the interim changes), it will ordinarily be necessary for the foregoing procedures to be followed at that time.

In cases where the concern maintains well kept and controlled perpetual inventory records supported by (1) a complete physical inventory at a date not coincident with the balance-sheet date, or (2) physical inventories of individual items taken from time to time so that the quantity of each item on hand is compared with the inventory record for that item at least once in each year, it will be satisfactory to undertake the procedure outlined at any interim date or dates selected by the auditor, his purpose being to satisfy himself as to the credibility of the perpetual-inventory records and whether they may be relied upon to support the inventory totals as shown on the balance-sheet.

(*B*) That hereafter, in the case of inventories which in the ordinary course of business are in the hands of public warehouses or other outside custodians, direct confirmation in writing from such custodians is acceptable procedure; except that, where the amount involved represents a significant proportion of the current assets or of the total assets of a concern, the independent certified public accountant shall make supplementary inquiries.

It should be clearly understood that in undertaking these auditing procedures regarding inventories, the independent certified public accountant does so for the purpose of satisfying himself as to the credibility of

the representations of the management regarding quantity and condition and does not hold himself out as a general appraiser, valuer, or expert in materials.

The general adoption of such added procedures regarding inventories may necessitate procedural changes on the part of clients. So many corporations close their books upon a calendar-year basis that it is doubtful whether the profession as at present organized can undertake the additional work adequately and satisfactorily on the last day of each year. Many corporations do not have adequate perpetual-inventory records and greater use of them should be encouraged.

The extension of procedures regarding inventories would be greatly facilitated if each concern adopted its natural business year instead of the calendar year as its fiscal year, and introduced continuous well kept perpetual inventory records.

The proposed changes will take time to bring about, and in the meantime the profession may well be faced with the necessity of submitting qualified reports in those cases in which it has been impracticable to carry out the added procedures.

Receivables

In regard to the question of confirming receivables by direct communication with the debtor, the following recommendation is made:

That hereafter, wherever practicable and reasonable, and where the aggregate amount of notes and accounts receivable represents a significant proportion of the current assets or of the total assets of a concern, confirmation of notes and accounts receivable by direct communication with the debtors shall be regarded as generally accepted auditing procedure in the examination of the accounts of a concern whose financial statements are accompanied by an independent certified public accountant's report; and that the method, extent, and time of confirming receivables in each engagement, and whether of all receivables or a part thereof, be determined by the independent certified public accountant as in other phases of procedure requiring the exercise of his judgment.

Appointment of Independent Certified Public Accountants

Apart from the specific phases of auditing procedure which have been the subject of consideration, the method of appointment of the independent auditor and his status in relation to the client are believed to be subjects of great importance to stockholders and creditors.

To emphasize the auditor's independence of the management, some corporations affected by public interest have adopted the practice of hav-

ing the independent auditor engaged or nominated by the board of directors or elected annually by the stockholders. Other corporations have provided that the stockholders be given an opportunity to ratify the selection made by the directors.

It is suggested that the auditor should be appointed early in each fiscal year so that he may carry out part of his work during the year.

Form of Independent Certified Public Accountant's Report or Opinion

The services which independent auditors render usually culminate in a report, which may take varying forms. In some cases a detailed report is rendered, accompanied by statements and supporting schedules; in other cases the report is limited to a concise statement of the scope of the examination and the related opinion of the independent auditor concerning the accompanying financial statements of the client. For present purposes the discussion is confined to the short form of auditor's report, which is sometimes described as a certificate. The terms "report," "opinion," "report and opinion," and "certificate" have been used interchangeably. As uniformity is desirable, either of the words "report" or "opinion" is recommended for general use. The word "report" has been adopted in the following comments.

In January, 1934, the Institute issued a pamphlet entitled *Audits of Corporate Accounts,* dealing with a standard form of auditor's report. The short form of report then recommended, and since widely adopted by the profession, met a long-felt need.

Developments during the five years in which the standard form of report has been used indicate the need of revision in the interest of clarity. The revised short form of report consists of two paragraphs. The first contains a brief statement of the scope of the examination, and the second deals with the auditor's opinion on the financial statements of the client as a result of his examination.

The major changes recommended pertain to the description of the scope of the examination, specifically to include reference to the system of internal control. The phrase "obtained information and explanations from officers and employees of the company" has been omitted because it is inherent in all auditing procedure to obtain information and explanations from officers and employees concerning the accounts, either as supplementing information obtained from other sources or as constituting the only available information on the subject. In the latter case, the auditor must decide, in view of all the circumstances, whether he should rely upon such information without disclosure of the source. The phrase in question has led to serious misconception as to the degree of reliance on

such information and explanations. The sense of the statement "but we did not make a detailed audit of the transactions" has been retained in a revised form. It will be recalled that this clause was included in the standard form of 1934 in order to make clear that the auditor's usual procedure consisted of testing and sampling rather than a detailed audit. It is believed that the business and financial public now fully understand that, in a well organized concern, the detection of irregularities is primarily a matter of internal procedure, and that testing and sampling to determine whether such procedure is adequate in scope and effective in operation is the usual practice of the independent auditor. Nevertheless, it is considered advisable for the purpose of emphasis to include the phrase, "without making a detailed audit of the transactions." There has been excluded the phrase "based upon such examination," as it is obvious that the independent certified public accountant can express an opinion only after he has completed the work set forth in the first paragraph of the report.

The independent certified public accountant should recognize that in some cases the revised short form recommended may not be altogether appropriate. For instance, there may be cases where the auditor may prefer to alter the first sentence of the standard short form, substituting some words to the effect that the accounting records (instead of the financial statements) have been examined. Obviously, also, it would be erroneous to mention internal control if none existed. Accordingly, while the proposed form is submitted as a standard, it is not prescribed or recommended for invariable use, but should be adapted to the needs of the particular case. For example, the report may be used in connection with an examination covering a period of years, in which case a modification of language would be necessary. Also, in new engagements appropriate investigations relating to prior years will have to be made to justify the use of the short-form report. However, in the interest of reasonable uniformity it is recommended that the substance of phrases in the standard form be used unless inappropriate.

In considering the independent certified public accountant's opinion, the reader should bear in mind one of the most important underlying concepts of financial statements, viz., that normally many of the assets of a concern are not realizable in cash, but are commonly stated at their historical cost or going-concern basis at amounts which are usually greater than the realizable value in forced liquidation. Again, the true profit or loss of a concern can be determined with accuracy only over its entire existence. Therefore, in any attempt to allocate to specific periods profit or loss applicable thereto, it must be recognized among other considerations that, as many transactions are not fully completed within such periods, the result as shown must contain many estimates and approximations in

the endeavor to present fairly the operating results of a period in conformity with generally accepted accounting principles.

Assuming that normal procedures have been carried out, it is not considered necessary to describe the details of the examination in this form of report. Any such details as are given should be included in separate paragraphs of the report. For example, reference may be made to procedures which the accountant has adopted regarding the examination of inventories and receivables; also, it may be pertinent to mention the fact that certain portions of the auditor's work have been carried out at different times during the course of the year. This may be indicated by inserting the words "at times" in the first paragraph of the short form of report immediately after the words "by methods."

It should be borne in mind that the financial statements, with all supplemental descriptive and explanatory data, including footnotes, are regarded as representations of the client. It is upon all these representations that the independent certified public accountant renders his opinion. If he considers explanations essential or desirable, and they have not been made in the financial statements, it will be necessary for him to make such explanations in a separate paragraph of his report.

In explanation of the general principles governing the auditor's opinion, with particular regard to explanations and exceptions, it is pertinent to state that the auditor satisfies himself as to the fairness of the statements "by methods and to the extent he deems appropriate," in general conformity with the auditing procedures recommended in the Institute's bulletin *Examination of Financial Statements.* Ordinarily, if he has so satisfied himself, he is in a position to express an unqualified opinion. However, if he considers it in the interest of clear disclosure of material fact to include explanations of procedures followed, he is free to do so. If, on the other hand, such disclosures are made by reason of any reservation or desire to qualify the opinion, they become exceptions and should be expressly stated as such in the opinion paragraph of the auditor's report. As previously stated, if such exceptions are sufficiently material to negative the expression of an opinion, the auditor should refrain from giving any opinion at all, although he may render an informative report in which he states that the limitations or exceptions relating to the examination are such as to make it impossible for him to express an opinion as to the fairness of the financial statements as a whole.

It is desirable as a general rule that exceptions by the independent certified public accountant be included in a paragraph separate from all others in the report and be referred to specifically in the final paragraph in which the opinion is stated. Any exception should be expressed clearly and unequivocally as to whether it affects the scope of the work, any particular item of the financial statements, the soundness of the com-

pany's procedures (as regards either the books or the financial statements), or the consistency of accounting practices where lack of consistency calls for exception.

It is the responsibility of the accountant—and one which he cannot escape—to determine the scope of the examination which he should make before giving his opinion on the statements under review. If in his judgment it is not practicable and reasonable in the circumstances of a given engagement to undertake the auditing procedures regarding inventories and/or receivables set forth in this report as generally accepted procedure and he has satisfied himself by other methods regarding such inventories and/or receivables, no useful purpose will be served by requiring an explanation in his report. If physical tests of inventories and/or confirmation of receivables are practicable and reasonable and the auditor has omitted such generally accepted auditing procedure, he should make a clear-cut exception in his report.

It is worthy of repetition that the extent of sampling and testing should be based upon the independent auditor's judgment as to the effectiveness of internal control, arrived at as the result of investigations, tests, and inquiries. Depending upon his conclusions in this respect, the independent certified public accountant should extend or may restrict the degree of detailed examination. Consequently, in some cases it may be necessary to modify or omit reference to reliance upon the system of internal control. Clearly also where a detailed examination is made, the phrase "without making a detailed audit of the transactions" would be inappropriate.

It is contemplated that, before signing a report of the short-form type suggested, the independent certified public accountant will be satisfied that his examination is in conformity with the procedures and practices outlined in *Examination of Financial Statements,* a bulletin published by the American Institute of Accountants in January, 1936, or in any subsequent revision thereof.

The report should be addressed to the board of directors or the stockholders if the appointment is made by them.

The description of the financial statements in both paragraphs should, of course, conform to the titles of the accompanying statements.

In consideration of the foregoing remarks the following short form of report is recommended:

Short Form of Independent Certified Public Accountant's Report or Opinion

To the Board of Directors (or Stockholders) of the XYZ Company:

We have examined the balance-sheet of the XYZ Company as of April 30, 1939, and the statements of income and surplus for the fiscal year then ended, have reviewed the system of internal control and the accounting procedures

of the company and, without making a detailed audit of the transactions, have examined or tested accounting records of the company and other supporting evidence, by methods and to the extent we deemed appropriate.

In our opinion, the accompanying balance-sheet and related statements of income and surplus present fairly the position of the XYZ Company at April 30, 1939, and the results of its operations for the fiscal year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

It is worthy of repetition and emphasis that, while the proposed form is submitted as a standard, it is not prescribed or recommended for invariable use but should be adapted to the needs of the particular case.

SPECIAL COMMITTEE ON AUDITING PROCEDURE

P. W. R. GLOVER, *Chairman*	J. K. MATHIESON	VICTOR H. STEMPF
GEORGE COCHRANE	NORMAN L. MCLAREN	C. OLIVER WELLINGTON
GEORGE P. ELLIS	MAURICE E. PELOUBET	
STANLEY G. H. FITCH	WALTER A. STAUB	JOHN L. CAREY, *Secretary*

Appendix D · Rules of Professional Conduct*

(These rules of conduct supplement the disciplinary clauses of the by-laws.)

(1) A firm or partnership, all the individual members of which are members of the Institute, may describe itself as "Members of the American Institute of Accountants," but a firm or partnership, not all the individual members of which are members of the Institute, or an individual practicing under a style denoting a partnership when in fact there be no partner or partners, or a corporation, or an individual or individuals practicing under a style denoting a corporate organization shall not use the designation "Members of the American Institute of Accountants."

(2) A member shall not allow any person to practice in his name who is not in partnership with him or in his employ.

(3) Commissions, brokerage, or other participation in the fees or profits of professional work shall not be allowed directly or indirectly to the laity by a member.

Commissions, brokerage, or other participation in the fees, charges, or profits of work recommended or turned over to the laity as incident to services for clients shall not be accepted directly or indirectly by a member.

(4) A member shall not engage in any business or occupation conjointly with that of a public accountant, which is incompatible or inconsistent therewith.

(5) In expressing an opinion on representations in financial statements which he has examined, a member may be held guilty of an act discreditable to the profession if

(a) he fails to disclose a material fact known to him which is not disclosed in the financial statements but disclosure of which is necessary to make the financial statements not misleading; or

(b) he fails to report any material misstatement known to him to appear in the financial statement; or

* American Institute of Accountants.

(c) he is materially negligent in the conduct of his examination or in making his report thereon; or

(d) he fails to acquire sufficient information to warrant expression of an opinion, or his exceptions are sufficiently material to negative the expression of an opinion; or

(e) he fails to direct attention to any material departure from generally accepted accounting principles or to disclose any material omission of generally accepted auditing procedure applicable in the circumstances.

(6) A member shall not sign a report purporting to express his opinion as the result of examination of financial statements unless they have been examined by him, a member or an employee of his firm, a member of the Institute, a member of a similar association in a foreign country, or a certified public accountant of a state or territory of the United States or the District of Columbia.

(7) A member shall not directly or indirectly solicit clients by circulars or advertisements, nor by personal communication or interview, not warranted by existing personal relations, and he shall not encroach upon the practice of another public accountant. A member may furnish service to those who request it.

(8) Direct or indirect offer of employment shall not be made by a member to an employee of another public accountant without first informing such accountant. This rule shall not be construed so as to inhibit negotiations with anyone who of his own initiative or in response to public advertisement shall apply to a member for employment.

(9) Professional service shall not be rendered or offered for a fee which shall be contingent upon the findings or results of such service. This rule does not apply to cases involving federal, state, or other taxes, in which the findings are those of the tax authorities and not those of the accountant. Fees to be fixed by courts or other public authorities, which are therefore of an indeterminate amount at the time when an engagement is undertaken, are not regarded as contingent fees within the meaning of this rule.

(10) A member shall not advertise his professional attainments or services:

(a) The publication of what is technically known as a card is restricted to an announcement of the name, title (member of American Institute of Accountants, CPA, or other professional affiliation or designation), class of service, and address of the person or firm, issued in connection with the announcement of change of address or personnel of firm, and shall not exceed two columns in width and three inches in depth if appearing in a newspaper, and not exceed one-quarter of a page if appearing in a magazine or similar publication.

(b) A paid listing in a directory is restricted to the name, title, class of

service, address and telephone number of the person or firm, and it shall not appear in bold type, box, or other form of display, or in a style which differentiates it from other listings in the same directory.

(11) A member shall not be an officer, director, stockholder, representative, or agent of any corporation engaged in the practice of public accounting in any state or territory of the United States or the District of Columbia.

(12) A member shall not permit his name to be used in conjunction with an estimate of earnings contingent upon future transactions in a manner which may lead to the belief that the member vouches for the accuracy of the forecast.

(13) A member shall not express his opinion on financial statements of any enterprise financed in whole or in part by public distribution of securities, if he owns or is committed to acquire a financial interest in the enterprise which is substantial either in relation to its capital or to his own personal fortune, or if a member of his immediate family owns or is committed to acquire a substantial interest in the enterprise. A member shall not express his opinion on financial statements which are used as a basis of credit if he owns or is committed to acquire a financial interest in the enterprise which is substantial either in relation to its capital or to his own personal fortune or if a member of his immediate family owns or is committed to acquire a substantial interest in the enterprise, unless in his report he discloses such interest.

(14) A member shall not make a competitive bid for professional engagements in any state, territory, or the District of Columbia, if such a bid would constitute a violation of any rule of the recognized society of certified public accountants or the official board of accountancy in that state, territory, or District.

(15) A member of the American Institute of Accountants engaged in an occupation in which he renders services of a type commonly rendered by public accountants, must observe the by-laws and rules of professional conduct of the Institute in the conduct of that occupation.

(16) A member shall not violate the confidential relationship between himself and his client.

Appendix E · Statistical Interpretation of Auditing Test Checks*

The proposal that statistical concepts and techniques can be an effective tool in auditing practice is no longer new or startling, yet indications are that most practitioners are making little use of these techniques. The reason sometimes given for not adopting these new techniques is the fact that, since auditing is a profession, there can be no substitute for the judgment of the practitioner, and the attempt to substitute "automatic" decisions for this judgment would be harmful to the profession. In some instances, however, such an explanation seems to be primarily a means of concealing distrust of something that appears too complicated to be readily understood or applied.

It should be made clear, first of all, that statistical techniques in no way supplant the auditor's judgment; they merely implement this judgment. Application of these techniques is no more automatic or mechanical than test checking performed without these techniques. The situation might be compared to the physician's use of the electrocardiograph. The machine does not displace the physician's judgment; it is a tool the physician uses to support his diagnosis of the patient's condition. The judgment of the physician is still a matter of great importance and, similarly, sound judgment on the auditor's part in using a statistical approach to test checking is a major factor. The judgment to be exercised by the auditor is discussed more fully later.

Secondly, statistical techniques are not necessarily incomprehensible. The immediate purpose of this article is to present a new and simple technique for the application of statistics to the area of test checking. This

* This material by the author was originally published in *The Journal of Accountancy* for January, 1954, under the title, "A Simple Tool to Assist the Auditor in Statistical Interpretation of Test Checks."

technique has four major advantages. First, the technique is based on relatively elementary concepts, and no extensive study of statistics is necessary in order for the user to gain adequate assurance that he understands the principles involved and can therefore proceed with full faith in using the technique. Second, because the method is relatively simple, no involved formulas or calculations are required. Third, the method necessitates no change in present-day test-checking techniques; the auditor can retain full control over the determination of the sample size and the interpretation of the results of the sample. He can proceed as he always has in making a test check but, at the points where decisions are necessary, he has available the means of placing those decisions on a sounder basis. Fourth, the plan, although simple, retains the desirable time-saving feature of the sequential sample which, in some cases, permits decisions based on very small samples.

Essentially, the technique involves little more than the use of a relatively simple table, which is presented later in this article. The probability theory upon which the table is based can be best explained by reference to the classical illustration of a bowl containing black and white balls. Assume, for instance, that the bowl contains 10,000 balls. Nine thousand of the balls are white, 1,000 are black—or, in terms of percentages, ninety per cent are white, ten per cent are black.

Probability Explained

A random sample of the contents of the bowl can be made by drawing one ball from the bowl, recording its color, replacing the ball, stirring the contents, and repeating the process until enough balls have been drawn. If the process is stopped after 100 draws, it is theoretically possible that all 100 balls selected would be white, or that all 100 balls selected would be black. As a matter of fact, however, we would expect the tabulation of our selection to show that the distribution of black balls and white balls approximates more nearly the distribution of the full 10,000 balls in the bowl. In other words, the sample would probably show 90 white balls and 10 black balls, or a distribution varying by only a few balls from this 90-10 relationship.

If one hundred balls were to be drawn as described above, and that sampling process were to be repeated one thousand times, the statistician could compute in advance the likely over-all results of the one thousand samples. This type of computed forecast is based upon probability, and the statistician says in effect that the probable results of taking the thousand samples will be those shown in Table I.

This table bears out the earlier statement that we could hardly expect to draw 100 white balls in a sample of 100, nor 100 black balls in a sample

TABLE I

PROBABLE RESULTS, BASED ON THE BINOMIAL DISTRIBUTION, OF DRAWING 1,000 SAMPLES OF 100 EACH FROM A POPULATION CONTAINING 10 PER CENT BLACK BALLS

Number of black balls in sample of 100	*Number of times in 1,000 the stated number of black balls will probably appear*	*Cumulative number of times in 1,000 that stated number of black balls or fewer will probably appear*
0	0*	0
1	0*	0
2	2	2
3	6	8
4	16	24
5	34	58
6	60	118
7	89	207
8	115	322
9	130	452
10	132	584
11	120	704
12	99	803
13	74	877
14	51	928
15	33	961
16	19	980
17	11	991
18	5	996
19	3	999
20	1	1,000
21	0*	1,000

* There is some chance that the stated number of black balls may be drawn but, since that chance is less than ½ in 1,000, the stated number of black balls is not likely to appear in only 1,000 draws.

of 100. The table also shows that we would probably draw in the neighborhood of 10 black balls in our sample of 100. While we would draw exactly 10 only about 13.2% of the times (132 times in 1,000), we would draw 8 to 12 black balls (10 plus or minus 2) about 59.6% of the times, and 6 to 14 black balls (10 plus or minus 4) about 87% of the times.

At this point it is possible to indicate the application of the concept of probabilities to the auditor's tests or samples. For maximum reliability of the interpretation of the results, the auditor's sample should be selected entirely at random, as was the case in drawing the balls from the bowl —on each draw, every item must have an equal chance to be drawn. Randomness in a sample can be assured by the use of published random number tables, using the table of numbers to decide which items are to be selected from the entire group of items.

Since the use of such tables is cumbersome and time consuming, an alternative method of selection commonly used by auditors can be substituted without much sacrifice of randomness. Suppose the auditor wishes to sample the accuracy of pricing on an inventory composed of 1,500

items, and he concludes that he should take a sample of 100 items. (The means of testing the conclusion as to the adequacy of the size of the sample is discussed later.) A relatively high degree of randomness can be secured by verifying the pricing of every 15th item (1,500 ÷ 100). The counting should not begin from the first item every time, however. To avoid the establishment of a pattern that might become known in advance to the client, the item used as the starting point for the selection process should be varied for each engagement.

Assume that the sample of inventory pricing selected as suggested above showed 2 errors. The auditor must reach some conclusion about the entire inventory from his study of the results of the sample. Reference to tables similar to Table I would show that the sample of 100 containing 2 errors might occur if the inventory actually contained as low as 1/10 per cent errors or as high as 12 per cent errors. These tables would also show that, if the entire inventory actually contained 2 per cent errors, the auditor could expect to find exactly 2 errors in a sample of 100 only about 271 times in 1,000, whereas he could expect to find less than 2 errors about 406 times in 1,000, and more than 2 errors about 323 times in 1,000.

At this point, the auditor has very little basis for reaching an opinion as to the over-all accuracy of the inventory. He knows only that the actual rate of error might range from 1/10 to 12 per cent, and that it is not likely that the inventory contains a rate of error identical with that of his sample.

If the auditor is willing to accept the inventory pricing as satisfactory only if he can be certain that the rate of error is two per cent or less, he will have to do a substantially greater amount of testing. If the actual rate of error is only slightly lower than the minimum acceptable rate of error, he may find it necessary to examine almost the entire inventory before he can be fairly confident in concluding that the inventory has no more than two per cent errors.

Up to this point, probabilities can give the auditor but one answer: his sample of 100 is of little help to him. On the other hand, if materiality and relative risk in this situation are such that the auditor would be willing to accept the inventory even though it contained up to ten per cent errors in pricing, the situation is entirely different. The sample of 100 can be of very considerable help to the auditor. Referring back to Table I, we note that when 10 per cent errors (black balls) are present, the chances are about 2 in 1,000 that a sample of 100 would disclose as few as two errors. Therefore, if the auditor finds only two errors in a sample of 100, he can conclude that the data from which the sample was drawn must surely contain less than 10 per cent errors, and he can expect to be right in that conclusion 998 times in 1,000 trials in which the same facts are present. There is thus a safety factor involved in his decision based on his sample

of 100, a safety factor that can be expressed more conveniently by saying that, when a sample of 100 discloses 2 errors, the auditor can expect to be right 99.8 per cent of the time in concluding that the sample must have come from a series of data containing less than 10 per cent error.

Similarly, if the auditor's sample of 100 discloses 4 errors, Table I would show him that, if the actual rate of error were 10 per cent, he would find 4 errors in his sample only 16 times in 1,000, and he would find 4 errors or fewer 24 times in 1,000. Accordingly, his conclusion that the inventory contains less than 10 per cent error would probably be right 976 times in 1,000 or 97.6 per cent of the time.

Two Decisions Necessary

From these illustrations it will be observed that, in order to use a sample intelligently, the auditor must make two decisions: what is the maximum rate of error he will accept in the given situation, and how much assurance does he want that his conclusion based on the results of his sample and the maximum allowable rate of error will be correct.

To facilitate the interpretation of sampling results in the light of these two decisions, a complete table has been developed. The arrangement of this new table makes it possible for the auditor to obtain simply and directly the information he needs for a sound interpretation of the results of his test checks. A portion of this table is shown as Table II; the complete table, adequate for most situations, is given as an appendix. The table is based on the Poisson distribution, which is a close approximation of the binomial distribution used in Table I. The Poisson distribution was used in view of the ease of using it in relation to the involved calculations necessary in using the binomial distribution.

The uses of the table are illustrated by the following examples. The reader may find it interesting to learn more fully the implications of decisions already made in accepting a given series of data based on a test check made in the course of an audit examination for which he is responsible. For instance, let us say the working papers for the test of the payroll of Experimental Labs., Inc., show that 200 entries in the payroll register were selected at random (or by selecting every nth entry) and that the recorded hours were traced to the employees' time cards. The working-paper schedule shows that one error was detected in the sample of 200, and the senior concluded from this sample that the hours shown on the payroll were sufficiently accurate to accept the recording of hours on the entire payroll under consideration.

We know only that the senior would base his decision on "experience." Perhaps he decided that in this case, if the payroll showed no more than 1 per cent error, it would be acceptable and, since the sample showed only

½ per cent error, the payroll was accepted as being sufficiently accurate. We can check on the reasonableness of this decision by glancing down the column of Table II headed "Number of items test checked," and locating the figure 200 which has opposite it the figure 1 in the second column, representing the 1 error disclosed by the sample. Following across the table on this line, the figure 59 is found under the column headed "1%." The figure 59 represents the number of times in 100 that one can expect to be right in assuming that data being tested contain less than one per cent errors when a sample of 200 shows one error. In other words, in situations that are similar, the senior's decision to accept data as meeting the 1 per cent standard he has set would be right 59 per cent of the time, and wrong 41 per cent of the time. Thus, unless the senior was willing to risk making an incorrect decision as much as 41 per cent of the time, he should not have accepted the payroll at this point.

TABLE II

IMPLICATIONS OF ACCEPTING DATA BASED ON THE NUMBER OF ERRORS DISCLOSED BY THE AUDITOR'S TEST CHECKS*

Number of items test checked	*Number of errors disclosed*	*Number of times in 100 that the auditor will be justified in deciding that the actual error rate is less than:*				
		0.5%	*1%*	*2%*	*5%*	*10%*
150	0	53	78	95	100	100
150	1	17	44	80	100	100
150	2	4	19	58	98	100
200	0	63	86	98	100	100
200	1	26	59	91	100	100
200	2	8	32	76	100	100
300	0	78	95	100	100	100
300	1	44	80	98	100	100
300	2	19	58	94	100	100
400	0	86	98	100	100	100
400	1	59	91	100	100	100
400	2	32	76	99	100	100

*The data in this table have been selected from the more complete table presented on page 700. The method by which the figures were derived is explained in connection with the more complete table.

Since the risk factor involved in making decisions has received little consideration up to this time, there is no way of knowing what risk the profession would consider reasonable to take. If we assume, however, that the profession would certainly insist on a standard of performance involving correct decisions at least 90% of the time, it is very apparent that the senior in charge of the Experimental Lab. audit did not act in accordance with such a standard.

At this point, it might be well to consider what the senior might have done had Table II been available to him. Several courses of action would have been open:

1. He could have concluded that the risk in accepting the payroll as meeting the standard of one per cent maximum allowable error was too great, and he could therefore have rejected the payroll, asking the client to make a complete audit of the payroll in order to disclose and correct all errors.

2. He could have increased the size of his sample. Had he tested enough additional items to bring the sample up to 400 without detecting additional errors, he could have determined from the table that, if he accepted the payroll as containing a maximum of one per cent error, he could expect to be right 91% of the time. If this figure met the standards of his firm, or of the profession as a whole, he could have accepted the payroll.

Had the additional testing disclosed additional errors, the probability of being right in accepting the payroll would still have been below 90 per cent. Two courses of action would be available to the senior in that event. He could have rejected the payroll as being too inaccurate and proceeded as under (1) above, asking the client to verify the entire payroll. He could also have continued sampling until his results justified accepting the payroll or, at any point when further sampling appeared impractical, he could have rejected the payroll and returned it to the client with the request that the payroll be completely audited.

3. Another course of action available to the senior might be to re-examine his standard as to the maximum acceptable rate of error. Should he conclude that the standard was higher than was necessary, and that a two per cent error rate in the payroll would be acceptable in the circumstances, he could then accept the payroll with assurance of being justified 91 per cent of the time based on the findings of his initial sample of 200. This decision assumes, of course, that being right 91 per cent of the time would be acceptable under the standards of his firm or of the profession.

4. A fourth course of action would be available if it would be feasible to consider being right less than 90% of the time in accepting the data based on the sample. For instance, after increasing the sample to 400 and locating a total of two errors, the senior could accept the payroll if he and his firm were willing to be right in making such a decision 76 per cent of the time, rather than insisting on 90 per cent correct decisions.

The preceding examples illustrate how an auditor would proceed in using Table II. One other use of Table II should be mentioned, however. The table can be used to determine the minimum acceptable sample size (assuming no errors are found) under any given standard of allowable per cent of error coupled with a given standard of probability that a decision in accepting a series of data will be correct. Returning to the example of Experimental Labs., Inc., it will be seen that, with the acceptable rate of error in the payroll set at one per cent and a minimum probability of making a right decision set at 95 per cent, a sample of 300 disclosing

no errors would be necessary in order to accept the payroll. On the other hand, with the acceptable rate of error set at two per cent and no change in the 95 per cent probability standard, the payroll could be accepted after a sample of 150 if no errors were disclosed.

To sum up the applications of Table II, after the auditor has set standards for a given situation concerning the maximum acceptable rate of error in the data being tested, and the number of times in 100 that he wants to be right in accepting such data, he can then locate the results of any given sample in the table and determine whether to accept the data as meeting his standards. Also, if a sample has been taken with a known result, Table II will show the auditor the standards he is operating under if he intends to accept the data based on the sample. Lastly, if standards have been set for a given situation, Table II enables the auditor to determine how large a first sample will be necessary assuming he finds no errors.

Statistics Is a Tool

Thus it can be seen that in no possible way does the use of statistics in conjunction with the audit test check substitute automatic decisions for the auditor's judgment. Instead, statistics merely give the auditor an essential tool to be used in determining to what extent his decisions, based on the standards he has set, will be correct. The auditor still must determine the maximum percentage of error he will accept in the data, based on his experience and his understanding of the factors of materiality and relative risk. He also determines the risk he is willing to assume of making a wrong decision in accepting the data under examination; or conversely, the percentage of times he wants to be certain he is making the right decision.

Uniform Standard of Risk

As to the risk factor, it is quite possible that more widespread use of statistics by the auditor and increased understanding of the risk inherent in every decision based on a sample may lead to the adoption of a uniform standard of risk to be assumed by the profession. The profession may thus decide what percentage of the time it wants to be right when questionable decisions must be made. Agreement on some figure, such as 95 per cent, does not mean, however, that practitioners will consistently be wrong five per cent of the time. These figures apply only to the situation where the probability involved is exactly 95 per cent. In many instances the sample may disclose so few errors that, when considered relative to the maximum allowable percentage of error, the auditor's decision to accept the data will be right more than 95 per cent of the time. Thus at times the probability

of being right may actually be close to 100 per cent, and a 95 per cent standard will result in an over-all performance considerably better than 95 per cent.

While the preceding discussion is complete in terms of indicating how the specially arranged data in Table II have been developed and in explaining how the table is to be used, there are limitations in the use of the table, and in the use of statistical data generally as applied to auditing test checks. As to Table II itself, the figures are close approximations of results that would be obtained in sampling from data that are infinite in number. The auditor, of course, works with a finite series of data; but, if the sample does not exceed ten per cent of the number of items in the series being tested, Table II may be used with adequate assurance that the error resulting from the violation of the basic assumption inherent in the figures will be negligible. Even when the ten per cent limitation is not adhered to, the table can still be used, however. In such cases the probability value in the table will be an understatement of the assurance the auditor may have.

There are no other limitations in the use of Table II if the sample is no larger than 10 per cent of the series of data to be tested. Such a statement implies in turn that, if this condition is not violated, the table may be used in evaluating the results of a test of, say, 100 items, regardless of whether the series of data from which the items were selected contained 1,000 items, 1,500 items, 5,000 items, or any other number of items in excess of 1,000. Thus the frequently used technique of defining sample size in terms of a percentage of the total number of items to be examined has little place in a statistical approach to test checking. The factor of major importance is the size of the sample taken, not the proportion of items sampled.

The reason why the size of the sample need not bear a given relationship to the size of the complete series of data being tested may be developed through reference to the original situation of the bowl containing 1,000 black and 9,000 white balls. Each ball has an equal chance of being drawn each time, and thus, as the size of the sample increases, the tabulation of results of the sample will evidence a tendency of the figures to move closer and closer to the actual 90-10 relationship of balls in the bowl. Since the basic reason for the tabulated results is the selection from a group of balls with a 90-10 relationship, whether the bowl contained 1,000 balls in this ratio or 10,000 balls in this ratio would be of no consequence if each ball were replaced after its color was noted.

As to the general use of statistical techniques in the interpretation of audit test checks, one very important point must be kept in mind. These techniques are applicable only to binary situations; that is, there can be only two types of items—white or black, right or wrong. The degree of

error in a calculation, and whether the error overstates or understates the figure, cannot be readily accommodated. Thus, if the auditor finds two errors in a test of 100 inventory extensions, he can reach a conclusion only as to the over-all error rate in extensions in the entire inventory. He cannot tell whether this rate of error will lead to an overstatement of the inventory or to an understatement, nor can he estimate the percentage of overstatement or understatement. Neither can he ascertain from his sample that one error may be present that overstates the inventory by, say, two per cent, unless that one item should appear in his sample.

Stratification Is Helpful

Such considerations might seem to indicate that there is no place in the auditor's scheme of things for the use of statistical evaluation techniques, since the auditor's decision must involve assurance that the *dollar* error does not exceed a given percentage of the total. The solution to this dilemma lies in the use of a common test-checking technique: stratification. The larger items, which are susceptible to the greatest dollar error, are completely verified, and the statistical evaluation is reserved for the results of the test of the smaller items. Among these items, any single error is likely to have very little effect on the final total, and the over-all accuracy of these items is the fact that must be established. If the rate of error is high, there may be a sizeable effect on the final total, and complete verification may be in order. Similarly, if statistical evaluation of the sample shows a good probability that the over-all rate of error is low, the auditor will have good assurance that the dollar error will also be low. This assurance is increased if the errors found tend to offset; but even though the errors are all in one direction, the auditor may still have considerable confidence in the company's figures. In the latter situation, however, the auditor might well decide to extend his sample, or attempt to determine why all of the errors were in one direction, if pure chance would suggest that they would tend to be offsetting. Of course, it should be remembered that, as in flipping coins, pure chance might give a small number of answers of the same type. Thus we might get tails the first four times but, by the time the coin had been flipped ten times, we would expect heads to appear one or more times unless the coin were unbalanced, or showed "tails" on both sides.

Summary

It should be stated once more that statistics can be a vital tool for the auditor in the evaluation of the results of his test checks, provided that the auditor is fully aware of the appropriate situations warranting the use of such a tool. In general, sampling techniques should be used only

when a large number of relatively small items is involved. Larger items should be verified 100 per cent.

In those instances which are within the stated limitations, the special arrangement of probabilities given in the accompanying table can be of great value to the auditor in reaching a correct decision as to whether to accept or reject any given series of figures. The auditor himself must still determine the maximum rate of error that would be permissible in terms of generally accepted auditing standards, and he must determine how many times in 100 he wants his decisions to be correct, although a uniform standard for the profession may be developed with respect to this factor of risk. Once these two values are set, use of the table enables the auditor to eliminate the "guesswork" in deciding whether to accept or reject the data, or to continue sampling.

The practitioner who is somewhat hesitant about completely abandoning the traditional approach to the interpretation of test-check results can continue as he has in the past, and use the table as a means of checking on his "dead reckoning." The simplicity of the table and the negligible amount of time required to use it preclude any possible objection to using this valuable means of double-checking important decisions.

The skeptic who prefers to disregard the possibilities of applying statistics to the interpretation of audit test checks should take little comfort in the thought that these statistical ideas will eventually disappear. Risk is inherent in any decision based on a test check, and the risk cannot be avoided by refusing to evaluate that risk statistically. Since the risk is present, the profession should move in the direction of efforts to bring the risk out into the open and measure it. Recognizing the risk and making an effort to determine its extent are necessary if the profession is to deal successfully with the risk involved in the use of test checks in the examination of financial statements.

IMPLICATIONS OF ACCEPTING DATA BASED ON THE NUMBER OF ERRORS DISCLOSED BY THE AUDITOR'S TEST CHECKS*

Number of items test checked	*Number of errors disclosed*	*Number of times in 100 that the auditor will be justified in deciding that the actual error rate is less than:* 0.5%	1%	2%	5%	10%
25	0	12	22	39	72	92
25	1	1	3	9	36	71
25	2	0	0	1	13	46
25	3			0	4	24
25	4				1	11
25	5				0	4
25	6					1
25	7					0
50	0	22	39	63	92	99
50	1	3	9	26	71	96
50	2	0	1	8	46	87
50	3		0	2	24	73
50	4			0	11	56
50	5				4	38
50	6				1	24
50	7				0	13
50	8					7
50	9					3
50	10					1
100	0	39	63	86	99	100
100	1	9	26	59	96	100
100	2	1	8	32	87	100
100	3	0	2	14	73	99
100	4		0	5	56	97
100	5			2	38	93
100	6			0	24	87
100	7				13	78
100	8				7	67
100	9				3	54
100	10				1	42

* This table is developed from Poisson's distribution as follows:

C' = Average number of occurrences of a given event
C = Number of times in 1,000 that C or fewer occurrences can be expected under the conditions of C'

Thus, if a sample of 100 is drawn from a series of data that has an average of 2 per cent errors, C' is 2, and the values for C are

0 = 135
1 = 406
2 = 677
3 = 857
4 = 947
5 = 983
6 = 995
7 = 999
8 = 1,000

In turn, when an average error of 2 per cent is present, a sample of 100 will reveal one error or less 406 times in 1,000. The auditor may therefore conclude that the probability of finding more than one error is 594 (the complement of 406) and that, in accepting a sample of 100 showing one error as coming from a population that must have contained less than 2 per cent errors, the probability of being correct is 59.4 per cent.

The value indicated in the previous example is found on the line of this table showing sample size 100, one error; under the 2 per cent column, the figure 59 appears.

All probabilities less than ½ are shown in the table as 0.

All probabilities greater than 99½ are shown in the table as 100.

This table covers only the sample sizes and maximum allowable rates of error that are most likely to be needed. Values not shown can be derived readily by using a table of the Poisson distribution as described above.

Number of items test checked	*Number of errors disclosed*	*Number of times in 100 that the auditor will be justified in deciding that the actual error rate is less than:* 0.5%	1%	2%	5%	10%
150	0	53	78	95	100	100
150	1	17	44	80	100	100
150	2	4	19	58	98	100
150	3	1	7	35	94	100
150	4	0	2	18	87	100
150	5		0	8	76	100
150	6			3	62	99
150	7			1	48	98
150	8			0	34	96
150	9				22	93
150	10				14	88
200	0	63	86	98	100	100
200	1	26	59	91	100	100
200	2	8	32	76	100	100
200	3	2	14	57	99	100
200	4	0	5	37	97	100
200	5		2	21	93	100
200	6		0	11	87	100
200	7			5	78	100
200	8			2	67	100
200	9			1	54	99
200	10			0	42	99
300	0	78	95	100	100	100
300	1	44	80	98	100	100
300	2	19	58	94	100	100
300	3	7	35	85	100	100
300	4	2	18	71	100	100
300	5	0	8	55	100	100
300	6		3	39	99	100
300	7		1	26	98	100
300	8		0	15	96	100
300	9			8	93	100
300	10			4	88	100
300	11			2	81	100
300	12			1	73	100
300	13			0	64	100
300	14				53	100
300	15				43	100
400	0	86	98	100	100	100
400	1	59	91	100	100	100
400	2	32	76	99	100	100
400	3	14	57	96	100	100
400	4	5	37	90	100	100
400	5	2	21	81	100	100
400	6	0	11	69	100	100
400	7		5	55	100	100
400	8		2	41	100	100
400	9		1	28	99	100
400	10		0	18	99	100
400	11			11	98	100
400	12			6	96	100
400	13			3	93	100
400	14			2	89	100

Number of items test checked	*Number of errors disclosed*	*Number of times in 100 that the auditor will be justified in deciding that the actual error rate is less than:* 0.5%	1%	2%	5%	10%
400	15			1	84	100
400	16			0	78	100
400	17				70	100
400	18				62	100
400	19				53	100
400	20				44	100
500	0	92	99	100	100	100
500	1	71	96	100	100	100
500	2	46	87	100	100	100
500	3	24	73	99	100	100
500	4	11	56	97	100	100
500	5	4	38	93	100	100
500	6	1	24	87	100	100
500	7	0	13	78	100	100
500	8		7	67	100	100
500	9		3	54	100	100
500	10		1	42	100	100
500	11		0	30	100	100
500	12			21	100	100
500	13			14	99	100
500	14			8	99	100
500	15			5	98	100
500	16			3	96	100
500	17			1	94	100
500	18			1	91	100
500	19			0	87	100
500	20				81	100
500	21				75	100
500	22				68	100
500	23				61	100
500	24				53	100
500	25				45	100

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