
CHAPTER 1

**THE RESPONSIBILITIES OF THE
CONTROLLER**

CONTENTS

Responsibilities	1001
Skills	1004
Controller versus Treasurer	1005
Controller's Reports	1005
Generally Accepted Accounting Principles	1005
Management Accounting	1006
Internal Auditing and Control	1007
Financial Analysis	1007
Management of Assets	1008
Investments	1008
Financing	1008
Tax Preparation and Planning	1008
Mergers and Acquisitions	1008
Conclusion	1008

Although the responsibilities of the controller and the treasurer may overlap between different companies, the controllership functions, themselves, remain basically similar between industries and companies. The controller may provide financial information to diverse users, including internal management, stockholders, creditors (including banks and suppliers), stock exchanges, employees, customers, the public at large, U.S. government agencies (e.g., the Securities and Exchange Commission, Internal Revenue Service, Department of Commerce, Department of Labor, and the Federal Trade Commission), and state and local tax and other agencies.

RESPONSIBILITIES

The role of the controller is changing. Businesses growing in size and complexity, intervention by the government, and more diverse means of raising capital have added to the functions and responsibilities of the controller, and these functions

continue to change rapidly. Traditionally, the controller has been thought of as the chief accounting officer and financial planner of a corporation. Indeed, *Webster's Dictionary* defines the word *controller* in just those terms. The typical controller was the executive in charge of the record keeping for a company, the preparer of financial statements, and the person responsible for internal controls. Though still responsible for these functions, controllers today have expanded responsibilities and are becoming more involved with strategic planning.

Strategic planning entails becoming involved with the decision-making processes of the organization. The controller is in the unique position to do this, as he or she has knowledge of the company plus the financial know-how that few others in the corporation possess. As more chief executive officers begin to rely on the controller's office for information and for input into planning decisions, the controller will likely become an even more valuable member of the management team. No longer is it sufficient for a controller to just add up the numbers; most executives expect more.

Controllers can do more than gather the data of past performance and pump out reports. They can use the information collected to become involved in the dynamics of running the business. Controllers have already gathered much of the information required to improve profits and operations, reduce costs, and develop strategies for the company. Moreover, they have a "hands-on" feel of the operating environment, such as the interrelationships among management, production, and sales. The accounting function, by its very nature, provides a large percentage of the information needed by executives. The trick is to put this information to use for the future and not just report on the past. Where is the company headed? Although controllers must not turn their backs on the traditionally assigned accounting tasks, they must apply a vast body of knowledge to the future prospects of the organization. It is in this regard that controllers will prove useful and valuable to any company.

The controller is usually the head officer of an accounting department whose size varies by company. He or she is responsible for the products of the accounting department as well as for running an efficient and effective department. Maintaining the company records for accounts payable, accounts receivable, inventory, and other pertinent areas has traditionally been considered the primary function of the controller. All transactions must be recorded properly and in a timely manner, either manually or using computer software. Along with record keeping, the controller is responsible for the preparation of financial statements and, if required, interpreting these statements for management. In doing so, the controller may work closely with the independent auditors to ascertain that the statements are presented fairly in accordance with generally accepted accounting principles (GAAP). The controller will also work hand-in-hand with the auditors as they perform the year-end independent audit and may require his or her staff to assist the auditors in certain tasks. Furthermore, the controller may play an important role in terms of involvement with the audit committee. In addition to assisting with the external audit, the controller is involved with internal auditing on a year-round basis: evaluating the company's internal control structure in order to determine that

it is operating effectively and efficiently; making improvements in the structure if it is determined that there are deficiencies; and reporting to the audit committee or board of directors—perhaps on a regular basis—the status of the internal control structure. Addressing the needs of management is another important aspect of the controller's role. It must not be overlooked that the goal of business is to realize a profit. Without information about the costs of production and distribution, management cannot determine how to proceed in regard to marketing decisions.

The controller must construct reports relating to production costs and distribution costs. To help management determine the most profitable course to follow, the controller should be acquainted with break-even analyses, cost-volume-profit relationships, and standard cost methods. Adequate reporting to management to enable intelligent decision making requires knowledge not only of cost accounting but of responsibility accounting and exception reporting. The controller must be able to report historical data as well as develop trends and relationships from existing data. In addition, the controller should know how to make use of financial relationships, determine the trend of ratios, present the ratios in suitable form, and interpret the data in a comprehensive report.

Tax returns and other tax matters that pertain to the corporation are also handled by the controller. Although some companies refer tax matters to the public accountants, it is still the responsibility of the controller to avoid excess taxes. The controller must be fully informed about tax matters, particularly federal income taxes. Identifying and analyzing tax implications of a given transaction are important functions of the controller because the controller's role is not limited to verifying the validity of tax computations. Most important, to minimize the tax obligation, tax planning is crucial. The controller must recognize tax problems in the making—that is, before the transactions are complete.

Any statistical reports that are needed by management are usually prepared in the controller's department. Therefore, the controller must be familiar with the operational flow of the company as well as the needs of its executives so that useful information can be developed and presented. The controller must prepare a variety of reports for distribution to different levels of management, depending on their needs. These reports enable various managerial objectives to be attained and can include weekly sales reports segregated by territories, salespeople, or products, and labor reports based on actual and standard costs that can be presented by product, division, material usage, or other important variables. The annual budget, an important planning tool, is generally prepared by the controller's office. The construction of the budget and its basic guidelines are determined by the controller. The controller is expected to analyze the plan to ascertain that it is reasonable and reliable. In addition, proposing suggestions for improvements is vital to a company's growth. The budget may be flexible, fixed, or zero based and the controller must be knowledgeable in these areas. Once prepared, the budget becomes a control device, and the controller analyzes variances and advises management to take corrective action, if necessary.

The controller may also be expected to determine whether the company is carrying adequate insurance on properties and other assets. It is important to

maintain adequate records of all contracts and leases and it is the controller's function to determine that they are recorded properly. The controller is also responsible for determining that the entity is satisfying all regulations prescribed by governmental agencies. If the board of directors sets any goals regarding financial transactions, these are listed in the minutes of the board, and it is the obligation of the controller's office to ensure that they are acted upon.

The passing of the Foreign Corrupt Practices Act in 1977 required corporations to maintain financial records and to establish and maintain an effective internal control structure. The controller must be aware of this Act and its requirements and realize that maintaining reasonable records and adequate controls is now a matter of law. The controller must be familiar with the mechanics of establishing a sound internal control structure as well as understand the cost/benefit relationships in establishing and monitoring the structure. Failure to do so will lead to problems such as that experienced by Enron and others.

The reporting function of the controller's job is not limited to just internal uses. The controller will be called upon to assist in the formulation of the annual report to stockholders and to prepare other reports for government agencies such as the Securities and Exchange Commission (SEC). The information in the annual report must be easily understood and well written and should frequently use graphical and other illustrative material. The financial information contained therein is typically prepared by the controller who will be responsible for its content. There should always be adequate disclosure and the information must conform to GAAP and to SEC requirements.

SKILLS

To cope with all these various tasks, the controller must possess certain skills, the most important being a knowledge of current accounting principles and practices and an ability to communicate effectively to management the impact of recent promulgations. The controller also must keep abreast of any significant changes to GAAP. This can usually be accomplished by receiving advice from the independent auditor or by referring to published sources. The controller must know how to communicate ideas both orally and through written representations. A forward-looking controller understands that information should be presented in a useful and understandable format. He or she always considers future consequences and directions.

The ability to motivate and organize subordinate staff members is essential. As the head of the accounting department, the controller must be able to direct the members of the department so that they are responsible for their own work. It is important to be fair and reasonable when dealing with subordinates.

In addition, the controller must be able to interact with people at all levels of the organization. Because the controller's position requires the providing of information to many levels of management, it is crucial that the controller possess a basic understanding of the problems faced by the business as a whole and the problems faced by individual departments within the company. Although the controller is not expected to become an expert in engineering or production, it is

important to be familiar with these areas in order to anticipate the needs of all departments. To be effective, the controller has to get involved to some extent with the day-to-day operations of the company. After formulating suggestions, the controller must be able to market them. Gaining respect from other executives will enable this. If others see that the controller wants to help, they will actually seek his or her advice.

A wise controller knows the limits of his or her prescribed functions and knowledge base. The preparation of voluminous reports that are never read may make it appear that the controller is working to his or her utmost capacity, but in reality very little is being accomplished. Certain areas of reporting would more properly be done by managers with expertise in other areas, such as engineering or sales. Without the proper support staff, the controller cannot function at the level he or she would like to.

CONTROLLER VERSUS TREASURER

Unlike the controller, the treasurer's responsibility is mostly custodial in nature and involves obtaining and managing the company's capital; he or she primarily deals with "money management" activities. The treasurer's activities are *external*, primarily involving financing matters and mix; he or she is involved with creditors (e.g., bank loan officers), stockholders, investors, underwriters for equity (stock) and bond issuances, and governmental regulatory bodies (such as the SEC). The treasurer is responsible for managing corporate assets (e.g., accounts receivable and inventory), debt, credit appraisal and collection, planning the finances, planning capital expenditures, obtaining funds, dividend disbursement, managing the investment portfolio, and pension management.

In some organizations the duties of the controller and treasurer overlap, with the treasurer being, in effect, the controller's superior.

CONTROLLER'S REPORTS

A successful controller will possess the ability to communicate ideas to various interested parties through the preparation of various types of reports. Prospective financial information is often needed to enable departments and segments to plan the future effectively. In this regard, planning reports are often issued by the controller. Information reports, analytical and control reports, as well as exception reports prepared by the controller enable analysis of a diverse amount of information and situations. Reports prepared for the board of directors must address specific policy matters and general trends in revenue and profits. These reports must enable the Board to establish and attain specified goals. Reports prepared for other company employees must be useful and timely. Reports to stockholders and relevant stock exchanges must be informative and complete. The controller's role in reporting information, therefore, cannot be overstated.

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

Inasmuch as the controller is primarily responsible for the entity's accounting functions, he or she should be fully cognizant of recent promulgations in financial accounting. It is critical that the controller be able to prepare detailed and meaning-

CHAPTER 14

**COST CONCEPTS, CLASSIFICATIONS, AND
PRODUCT COSTING SYSTEMS**

CONTENTS

Cost Accounting versus Management Accounting	14,002
Cost Concepts, Terms, and Classifications	14,002
Costs by Management Function	14,003
Direct Costs and Indirect Costs	14,004
Product Costs and Period Costs	14,005
Variable Costs, Fixed Costs, and Mixed (Semivariable) Costs	14,007
Unit (Average) Costs and Total Costs	14,008
Costs for Planning, Control, and Decision Making	14,008
Income Statements and Balance Sheets—Manufacturer	14,010
Cost Accumulation Systems	14,012
Job Order Costing	14,013
Process Costing	14,020
Allocation of Service Department Costs to Production	
Departments	14,031
Basis of Assigning Service Department Costs	14,031
Procedure for Service Department Cost Allocation	14,031
Direct Method	14,032
Step Method	14,032
Reciprocal Method	14,033
Solving Simultaneous Equations with Lotus 1-2-3 and Microsoft Excel	14,033
	Exhibits
Exhibit 14-1. Costs by Management Function	14,006
Exhibit 14-2. Various Classifications of Costs	14,007
Exhibit 14-3. Total and Unit (Average) Costs	14,009
Exhibit 14-4. Manufacturer's Income Statements for the Year Ended December 31, 2X13	14,011
Exhibit 14-5. Manufacturer's Schedule of Cost Goods Manufactured	14,011
Exhibit 14-6. Manufacturer's Current Asset Section of the Balance Sheet	14,012

Exhibit 14-7. Differences Between Job Order Costing and Process Costing	14,013
Exhibit 14-8. Basic Records in a Job Cost System	14,014
Exhibit 14-9. Job Cost System—Flow Chart of Ledger Relationship	14,015
Exhibit 14-10. Job Cost Sheets and Supporting Inventory Cards	14,019
Exhibit 14-11. Types of Processing Flow	14,022

Management accounting as defined by the Institute of Management Accountants (IMA) is the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information, which is used by management to plan, evaluate, and control within an organization. It ensures the appropriate use of, and accountability for, an organization's resources. Management accounting also relates to the preparation of financial reports for nonmanagement groups, such as regulatory agencies and tax authorities. Simply stated, management accounting is the accounting for the planning, control, and decision-making activities of an organization.

COST ACCOUNTING VERSUS MANAGEMENT ACCOUNTING

The difference between cost accounting and management accounting is a subtle one. The IMA defines cost accounting as "a systematic set of procedures for recording and reporting measurements of the cost of manufacturing goods and performing services in the aggregate and in detail. It includes methods for recognizing, classifying, allocating, aggregating and reporting such costs and comparing them with standard costs." From this definition of cost accounting and the IMA's definition of management accounting, one thing is clear: the major function of cost accounting is cost accumulation for inventory valuation and income determination. Management accounting, however, emphasizes the use of the cost data for planning, control, and decision-making purposes.

COST CONCEPTS, TERMS, AND CLASSIFICATIONS

In financial accounting, the term *cost* is defined as a measurement, in monetary terms, of the amount of resources used for some purposes. In managerial accounting, the term *cost* is used in many ways. That is, different types of costs are used for different purposes. Some costs are useful and required for inventory valuation and income determination. Some costs are useful for planning, budgeting, and cost control. Still others are useful for making short-term and long-term decisions. Costs can be classified into various categories, according to:

1. Management function:
 - a. Manufacturing costs.
 - b. Nonmanufacturing costs (operating expenses).
2. Ease of traceability:
 - a. Direct costs.
 - b. Indirect costs.

3. Timing of charges against sales revenue:
 - a. Product costs.
 - b. Period costs.
4. Behavior in accordance with changes in activity:
 - a. Variable costs.
 - b. Fixed costs.
 - c. Mixed (semivariable) costs.
5. Degree of averaging:
 - a. Unit (average) costs.
 - b. Total costs.
- c. Relevance to planning, control, and decision making:
 - a. Controllable and noncontrollable costs.
 - b. Standard costs.
 - c. Incremental (differential) costs.
 - d. Sunk costs.
 - e. Out-of-pocket (outlay) costs.
 - f. Relevant costs.
 - g. Opportunity costs.

Each of the cost categories is discussed in the remainder of this chapter.

Costs by Management Function

In a manufacturing firm, costs are divided categorically by the functional activities with which they are associated: (1) manufacturing costs and (2) non-manufacturing costs (operating expenses).

Manufacturing Costs. Manufacturing costs are those costs associated with the manufacturing activities of the company. Manufacturing costs are subdivided into three categories: (1) direct materials, (2) direct labor, and (3) factory overhead. Direct materials are all materials that become an integral part of the finished product. Examples are the steel used to make an automobile and the wood to make furniture. Glues, nails, and other minor items are called indirect materials (or supplies) and are classified as part of factory overhead, which is explained below.

Direct labor is the labor directly involved in making the product. Examples of direct labor costs are the wages of assembly workers on an assembly line and the wages of machine tool operators in a machine shop. Indirect labor, such as wages of supervisory personnel and janitors, is classified as part of factory overhead. Factory overhead can be defined as including all costs of manufacturing except direct materials and direct labor. Some of the many examples include depreciation, rent, taxes, insurance, fringe benefits, payroll taxes, and cost of idle time. Factory overhead can be defined as including all costs of manufacturing except direct materials and direct labor. Some of the many examples include depreciation, rent, property taxes, insurance, fringe benefits, payroll taxes, setup costs, waste control

costs, quality costs, engineering, workers' compensation, and cost of idle time. Factory overhead is also called *manufacturing overhead*, *indirect manufacturing expenses*, *factory expense*, and *factory burden*.

Many costs overlap within their categories. For example, direct materials and direct labor, when combined, are called *prime costs*. Direct labor and factory overhead, when combined, are termed *conversion costs* (or *processing costs*).

One important category of factory overhead is that of quality costs. Quality costs are costs that occur because poor quality may exist or actually does exist. These costs are significant in amount, often totaling 20% to 25% of sales. The subcategories of quality costs are prevention, appraisal, and failure costs. *Prevention costs* are those incurred to prevent defects. Amounts spent on quality training programs, researching customer needs, quality circles, and improved production equipment are considered in prevention costs. Expenditures made for prevention will minimize the costs that will be incurred for appraisal and failure. *Appraisal costs* are costs incurred for monitoring or inspection; these costs compensate for mistakes not eliminated through prevention. *Failure costs* may be internal (e.g., scrap and rework costs and reinspection) or external (e.g., as product returns or recalls owing to quality problems, warranty costs, and lost sales due to poor product performance).

Nonmanufacturing Costs. Nonmanufacturing costs (or operating expenses) are subdivided into selling expenses and general and administrative (G & A) expenses. Selling expenses are all the expenses associated with obtaining sales and the delivery of the product. Examples are advertising and sales commissions. G & A expenses include all the expenses that are incurred in connection with performing general and administrative activities. Examples are executives' salaries and legal expenses. Many other examples of costs by management function and their relationships are found in Exhibit 14-1.

Direct Costs and Indirect Costs

Costs may be viewed as either direct or indirect in terms of the extent that they are *traceable* to a particular cost object. A *cost object* is any item for which the manager wishes to measure cost. Jobs, product lines, departments, divisions, sales territories, or units produced are typical cost objects. *Direct costs* can be directly traceable to the costing object. For example, if the object of costing under consideration is a product line, then the materials and labor involved in the manufacture of the line would both be direct costs.

Factory overhead items are all indirect costs, as they are not directly identifiable to any particular product line. Costs shared by different departments, products or jobs, called *common costs* or *joint costs* are also *indirect costs*. National advertising that benefits more than one product and sales territory is an example of an indirect cost. Accountants may *allocate* them on some *arbitrary* basis to specific products or departments.

The following examples illustrate a cost object and its related direct costs for nonmanufacturing firms:

- In a *retail firm*, such as a department store, costs can be traced to a department. For example, the direct costs of the shoe department include the costs of shoes and the wages of employees working in that department. Indirect costs include the costs of utilities, insurance, property taxes, storage, and handling.
- In a *service organization*, such as an accounting firm, costs can be traced to a specific service, such as tax return preparation. Direct costs for tax return preparation services include the costs of tax return forms, computer use, and labor to prepare the return. Indirect costs include the costs of office rental space, utilities, secretarial labor, telephone expenses, and depreciation of office furniture.

Product Costs and Period Costs

By their timing of charges against revenue or by whether they are inventoriable, costs are classified as product costs or period costs.

Product costs are inventoriable costs, identified as part of inventory on hand. They are therefore assets until they are sold. Once they are sold, they become expenses (i.e., cost of goods sold). All manufacturing costs are product costs.

CHAPTER 31

FINANCIAL STATEMENT ANALYSIS

CONTENTS

Audit Attention	31,004
Horizontal and Vertical Analysis	31,004
Balance Sheet Analysis	31,005
Appraising Asset Quality	31,005
Cash	31,006
Accounts Receivable	31,006
Inventory	31,009
Investments	31,010
Fixed Assets	31,011
Management of Fixed Assets	31,013
Intangible Assets	31,013
Deferred Charges	31,014
Asset Utilization	31,015
Asset Profile	31,016
Liabilities	31,017
Overstated Liabilities	31,019
Undervalued or Unrecorded Liabilities	31,019
Avenues of Financing	31,019
Management of Liabilities	31,020
Stockholders' Equity	31,020
Liquidity Analysis	31,021
Funds Flow Ratios	31,022
Appraisal of Solvency	31,027
Potential for Business Failure	31,028
Quantitative Factors in Predicting Corporate Failure	31,030
Qualitative Factors in Predicting Failure	31,030
Financial/Quantitative Factors That Minimize the Potential for Failure	31,031
Nonfinancial Factors That Minimize the Potential for Failure	31,031
Income Statement Analysis	31,032
Analyzing Discretionary Costs	31,032
Cash Flow from Operations	31,034
The Role of Taxable Income	31,035

Residual Income	31,036
Accounting Policies	31,036
Accounting Estimates	31,037
Discontinued Operations	31,038
Profitability Measures	31,038
Growth Rate	31,039
Internal Control and Management Honesty	31,040
Market Value Measures	31,040
How to Analyze the Financial Structure of the Firm	31,040
Types of Stability Measurements	31,040
Operating Leverage	31,043
Stability Elements	31,043
Product Line Characteristics	31,044
Ways to Measure Marketing Effectiveness	31,047
Consider Raw Materials	31,047
Management Quality	31,047
Employees	31,048
Risk	31,048
Industry Characteristics	31,049
Industry Characteristics Indicative of Greater Risk	31,049
Political Factors	31,050
Extensible Business Reporting Language (XBRL): Financial Reporting on the Internet	31,051
Conclusion	31,052

Under the Sarbanes-Oxley Act, annual reports are due within 60 days of year-end. Quarterly reports are due within 35 days. The rules apply to public companies having a market value capitalization of \$75 million or more.

Financial statement analysis is an appraisal of a company's previous financial performance and its future potential. It looks at the overall health and operating performance of the business. This chapter covers analytical tools to be followed in appraising the balance sheet, analyzing the income statement, and evaluating financial structure. Financial management analyzes the financial statements to see how the company looks to the financial community and what corrective steps and policies can be initiated to minimize and solve financial problems. Areas of risk are identified. Means to efficiently utilize assets and earn greater returns are concentrated on. Financial statement analysis aids in determining the appropriateness of mergers and acquisitions.

We express our appreciation to Stan Chu, MS, CPA, of the City University of New York, for his coauthoring of this chapter, and to Hilmi Elifoglu, Ph.D., CISA, Profes-

sor of Accounting and Information Systems, for his coauthoring of the material on XBRL at the end of the chapter.

A company's financial health has a bearing upon its price-earnings ratio, bond rating, cost of financing, and availability of financing. The importance of a sound financial statement analysis is evidenced by Enron.

To obtain worthwhile conclusions from financial ratios, the financial manager has to make two comparisons:

1. *Industry Comparison.* The financial executive should compare the company's ratios with those of competing companies in the industry or with industry standards. Industry norms can be obtained from such services as Dun and Bradstreet, Robert Morris Associates, Standard and Poor's, and Value Line.

EXAMPLE 1: Dun and Bradstreet computes 14 ratios for each of 125 lines of business. They are published annually in Dun's Review and Key Business Ratios, Robert Morris Associates publishes Annual Statement Studies. Sixteen ratios are computed for more than 300 lines of business, as is a percentage distribution of items on the balance sheet and income statement (common size financial statements).

In analyzing a company, you should appraise the trends in its industry. What is the pattern of growth or decline in the industry? The profit dollar is worth more if earned in a healthy, expanding industry than in a declining one.

You have to make certain that the financial data of competitors are comparable to yours. For example, you cannot compare profitability when your company uses FIFO while a competitor uses LIFO for inventory valuation. In this case, you must restate the earnings of both companies on a comparative basis.

2. *Trend Analysis.* A company's ratio may be compared over several years to identify direction of financial health or operational performance. An attempt should be made to uncover the reasons for the change.

The optimum value for any given ratio usually varies across industry lines, through time, and within different companies in the same industry. In other words, a ratio deemed optimum for one company may be inadequate for another. A particular ratio is typically deemed optimum within a given range of values. An increase or decrease beyond this range points to weakness or inefficiency.

EXAMPLE 2: Whereas a low current ratio may indicate poor liquidity, a very high current ratio may reflect inefficient utilization of assets (e.g., excessive inventory) or inability to use short-term credit to the firm's advantage.

For a seasonal business, you may find that year-end financial data are not representative. Thus, averages based on quarterly or monthly information may be used to level out seasonality effects.

When computing ratios for analytical purposes, you may also want to use the realistic values for balance sheet accounts rather than reported amounts.

For example, in ratios, including the asset and its market value is more relevant than its historical cost.

A distorted trend signals a possible problem requiring management attention. However, a lack of change does not always mean normalcy. For example, labor growth may be up but production/sales may be static or down. Hence, labor costs may be disproportionate to operational activity.

AUDIT ATTENTION

Financial statement analysis indicates areas requiring audit attention. You should look at the percentage change in an account over the years or relative to some base year to identify inconsistencies.

EXAMPLE 3: If promotion and entertainment expense to sales was 3% last year and shot up to 15% this year, the internal auditor would want to know the reasons. This would be particularly disturbing if other competing companies still had a percentage relationship of 3%. The internal auditor might suspect that the promotion and entertainment expense account contained some personal rather than business charges. Supporting documentation for the charges would be requested and carefully reviewed by the internal auditor.

HORIZONTAL AND VERTICAL ANALYSIS

Horizontal analysis looks at the trend in accounts over the years and aids in identifying areas of wide divergence mandating further attention. Horizontal analysis may also be presented by showing trends relative to a base year.

EXAMPLE 4: X Company's revenue in 2X11 was \$200,000 and in 2X12 was \$250,000.

The percentage increase equals:

$$\frac{\text{Change}}{\text{Prior Year}} = \frac{\$ 50,000}{\$ 200,000} = 25\%$$

In vertical analysis, a significant item on a financial statement is used as a base value, and all other items on the financial statement are compared to it. In performing vertical analysis for the balance sheet, total assets is assigned 100%. Each asset is expressed as a percentage of total assets. Total liabilities and stockholders' equity is also assigned 100%. Each liability and stockholders' equity account is then expressed as a percentage of total liabilities and stockholders' equity. In the income statement, net sales are given the value of 100% and all other accounts are appraised in comparison to net sales. The resulting figures are then given in a common size statement.

Vertical analysis is helpful in disclosing the internal structure of the business and possible problem areas. It shows the relationship between each income statement account and revenue. It indicates the mix of assets that produces the income and the mix of the sources of capital, whether by current or long-term liabilities or by equity funding. Besides making internal evaluation possible, the results of vertical analysis are also employed to appraise the company's relative position in

the industry. Horizontal and vertical analysis point to possible problem areas to be evaluated by the financial manager.

EXAMPLE 5:

	X Company Common-Size Income Statement for the Year Ended 12/31/2X12	
Sales	\$40,000	100%
Less: Cost of Sales	<u>10,000</u>	<u>25%</u>
Gross Profit	\$30,000	75%
Less: Expenses	<u>4,000</u>	<u>10%</u>
Net Income	<u>\$26,000</u>	<u>65%</u>

BALANCE SHEET ANALYSIS

As a financial manager, you have to be able to analyze asset and liability accounts, evaluate corporate liquidity, appraise business solvency, and look to signs of possible business failure. You are concerned with the realizability of assets, turnover, and earning potential. Besides analyzing your company's financial health, you will want to make recommendations for improvement so that financial problems are rectified. Also, you can identify corporate strength which may further be taken advantage of. The evaluation of liabilities considers their possible overstatement or understatement.

Appraising Asset Quality

Asset quality applies to the certainty associated with the amount and timing of the realization of the assets in cash. Therefore, assets should be categorized by risk category.

What to Do: Calculate the following ratios: (1) high-risk assets to total assets, and (2) high-risk assets to sales. If high risk exists in assets, future write-offs may occur. For instance, the realization of goodwill is more doubtful than machinery. Also evaluate the risk of each major asset category. For example, receivables from an economically unstable government (e.g., Mexico) have greater risk than a receivable from ITT.

Special Note: Single-purpose assets have greater risk than multipurpose ones.

What to Watch Out for: Assets with no separable value that cannot be sold easily, such as intangibles and work-in-process. On the contrary, marketable securities are readily salable.

In appraising realization risk in assets, the effect of changing government policies on the entity has to be taken into account. Risk may exist with chemicals and other products deemed hazardous to health. Huge inventory losses may have to be taken.

CHAPTER 59

HOW TAXES AFFECT BUSINESS DECISIONS

CONTENTS

Tax Accounting Methods	59,002
Installment Sales	59,002
Dividends-Received Deduction	59,003
Charitable Contributions	59,004
Net Operating Loss Deductions	59,005
Organization Costs	59,005
Depreciation	59,005
Capital Gains and Losses	59,008
Manufacturers' Deduction	59,008
Federal Tax Rates	59,008
Foreign Tax Credit	59,009
The Alternative Minimum Tax	59,009
The Personal Holding Company Tax	59,011
Accumulated Earnings Tax	59,012
Corporate Reorganizations	59,012
Stock Redemptions	59,013
Controlled Group of Corporations	59,014
Affiliated Corporations	59,015
Tax-Free Exchange of Property for Stock	59,015
Corporate Liquidations	59,016
S Corporations	59,017
Election	59,017
Computing Taxable Income	59,018
Distribution to Shareholders	59,019
Basis of S Corporation Stock	59,019
Shareholder/Employee Benefits	59,019
Tax Year	59,020
Pitfalls in Converting from a C Corporation to an S Corporation	59,020
Passive Investment Income Tax	59,020
Built-In Gains Tax	59,020
Termination and Revocation	59,020
Sample Filled-In Tax Forms	59,021
Conclusion	59,052

Exhibits

Exhibit 59-1. Sample Adjusted Trial Balance for a C Corporation	59,022
Exhibit 59-2. Filled-In Form 1120 for a C Corporation	59,023
Exhibit 59-3. Sample Adjusted Trial Balance for an S Corporation	59,034
Exhibit 54-4. Sample Filled-In Form 1120 for an S Corporation	59,035

The objective of companies is to maximize profits while simultaneously minimizing income taxes. Tax planning strategies are essential in satisfying this basic objective. The controller must: (1) be familiar with certain basic federal income tax rules, and (2) be aware of the complex tax implications of business combinations.

The company and the shareholders must be considered when planning and implementing tax strategies. The determination of whether a business should operate as a C corporation or an S corporation involves consideration of tax rates at both the entity and owner's levels. Further consideration should be given to Internal Revenue Code restrictions, long-term considerations, including liquidation possibilities are crucial. The selection of the cash or accrual basis of accounting must be based on a variety of factors including regulatory agency requirements, federal income tax provisions, and basic timing factors in accounting recognition. Where alternatives exist, the controller is called upon for analysis and recommendations.

TAX ACCOUNTING METHODS

The cash method of accounting results in the recognition of income when collected and expenses when paid. Under this method, constructive receipt of income results in recognition. The apparent advantage to the cash method of accounting is that careful planning can result in the deferral of income from the current period to the next. Billing and collection should therefore be timed carefully. Under Internal Revenue Code (IRC) Sec. 448, however, the cash method of accounting may be elected only by: (1) C corporations with average annual gross receipts of \$5 million or less, (2) qualified personal service corporations, and (3) farming and timber businesses. Taxpayers failing to qualify for the cash method of accounting must use the accrual method of accounting, whereby income is recognized when earned and expenses are recognized when incurred.

INSTALLMENT SALES

Pursuant to IRC Sec. 453, the installment sale provisions prorate the gross profit on a sale over the years in which payments are to be received. Depending on current and potential tax rate changes, the installment sale provisions might be advantageous. The installment sale provisions are automatic; i.e., a taxpayer must elect not to be covered by the statutory provisions. The installment sale provisions are applicable to sales of real property and casual sales of personal property at a gain. Sales by dealers of personal or real property are generally not eligible for the installment sale provisions, nor are revolving credit sales and sales of publicly traded securities. The character of gain recognized will not be altered under the

installment sale provisions; accordingly, the disposition of a capital asset will result in capital gain. Caution must be exercised in case of depreciable property since any depreciation that must be recaptured under IRC Sec. 1245 and IRC Sec. 1250 must be recaptured in the year of sale, regardless of the installment sale provisions.

DIVIDENDS-RECEIVED DEDUCTION

Corporations that receive dividends from unaffiliated domestic taxable corporations are generally entitled to a 70% dividends-received deduction. The deduction, however, is limited to 70% of the corporation's tentative taxable income, which is the taxable income of the corporation before consideration of the dividend-received deduction and any applicable net operating loss deduction. The 70% of tentative taxable income limitation is not applicable when the corporation sustains a net operating loss before or after the dividends-received deduction. Additionally, the deduction is increased to 80% in cases where the dividends are received from a 20%-or-more owned corporation.

A corporation whose stock is included in a debt-financed portfolio will partially or totally lose the dividends-received deduction. The beneficial provisions will also not be applicable in cases involving the receipt of dividends from mutual savings banks, since such receipts in essence represent interest income.

It should be noted that dividends received from affiliated corporations are generally entitled to a 100% dividends-received deduction.

The application of the general rule may be illustrated as follows:

Sales	\$300,000
Dividend income received from a less than 20%-owned corporation	100,000
	<hr/> 400,000
Operating expenses	310,000
	<hr/> 90,000
Tentative taxable income	90,000
Dividends-received deduction; limited to 70% of \$90,000	63,000
	<hr/> \$ 27,000
Taxable income	<hr/> <hr/>

On the other hand, had the corporation sustained an operating loss of \$90,000, the "70% of tentative taxable income limitation" would not be applicable; accordingly, the dividends-received deduction would be 70% of \$100,000, or \$70,000, effectively increasing the net operating loss to \$160,000.

Further, the following example illustrates that the "70% of tentative taxable income limitation: does not apply if the corporation sustains a net operating loss after the dividends-received deduction:"

Sales	\$300,000
Dividend income received from a less than 20%-owned corporation	100,000
	<hr/> 400,000
Operating expenses	390,000
	<hr/>

Tentative taxable income	10,000
Dividends-received deduction; 70% of \$100,000	70,000
Net operating loss	<u>\$ (60,000)</u>

Investment strategies should be carefully monitored in order to secure the benefits of the dividends-received deduction. The wrong investment vehicles could easily result in the loss of the desired tax benefit. For example, the following dividends are not eligible for the dividends-received deduction:

- Dividends from mutual savings banks, which in essence represent interest on bank accounts.
- Dividends derived from real estate investment trusts.
- Capital gains dividends passed through from mutual funds.
- Dividends from money market funds which invest solely in interest-paying securities.

It should also be noted that the dividends-received deduction is allowed only if the dividend-paying stock is held at least 46 days during the 90-day period that commences 45 days before the stock became ex-dividend with respect to the dividend.

CHARITABLE CONTRIBUTIONS

The deduction for charitable contributions is generally limited annually to 10% of taxable income, computed without regard to the deduction for charitable contributions, and with taking into account: (1) the dividends-received deduction, (2) any net operating loss carryback, and (3) any net capital loss carryback. Furthermore, the charitable contribution deduction may not increase an existing net operating loss. Any charitable contributions which may not be deducted in the current year by virtue of the 10% limitation may be carried forward up to five years. Corporations using the accrual method of accounting may deduct charitable contributions authorized by the board of directors but paid after year-end as long as payment is made within two months after year-end. Otherwise, cash basis accounting is applicable.

With respect to contributions of property, the deduction is generally measured by the corporation's basis in the property. In the case of contributions of inventory and other ordinary income producing property for the care of the ill, the needy, or infants, the deduction is equal to the corporation's basis in the property increased by 50% of the property's appreciation. In no event, however, may the deduction exceed twice the property's basis. A contribution of a vehicle is generally limited to the gross proceeds the charitable organization receives upon subsequent sale of the vehicle. In the event that the vehicle is not sold by the charitable organization (donee), the donee must provide written certification of the vehicle and the duration of its use.

NET OPERATING LOSS DEDUCTIONS

In general, net operating losses of corporations may be carried back up to two years and carried forward up to 20 years. **Note:** With respect to net operating losses arising in tax years beginning before August 6, 1997, the carryback period is three years and the carryforward period is 15 years.

An election may be made, however, to forego the carryback. This may be advisable when tax rates in future years render the loss deduction more valuable. IRS attention is drawn to the tax return for the year to which the carryback is claimed. Accordingly, it might be judicious to relinquish the right to a carryback claim since the prior year's tax return may be subject to IRS scrutiny. When calculating the net operating loss deduction, no deduction is allowed for net operating loss carrybacks or carryovers. The dividends-received deduction, however, is allowable.

ORGANIZATION COSTS

Organization costs are costs incurred in connection with creating a corporation. Organization costs include legal and accounting fees as well as filing fees and payments to temporary directors. Under current tax law, up to \$5,000 of start-up costs and \$5,000 of organization costs may be deducted in the year of commencement of business.

The available \$5,000 deduction for organization costs must be reduced by the amount by which the cumulative start-up or organization costs exceed \$50,000. Any remaining start-up costs and organization costs may be amortized over 15 years. An election may be made to capitalize and amortize all organization costs.

DEPRECIATION

With respect to tangible depreciable property placed into service after 1986, the modified accelerated cost recovery system (MACRS) of depreciation is applicable.

Under MACRS, assets are placed into recovery periods based on estimated economic lives specified in the Code.

The table below represents the recovery periods applicable to tangible personal property subject to depreciation recapture under IRC Sec. 1245.

Recovery Period	Qualifying Property
3 years	Assets with a life of 4 years or less
5 years	Assets with a life of at least 4 years and less than 10 years
7 years	Assets with a life of at least 10 years and less than 16 years
10 years	Assets with a life of at least 16 years and less than 20 years
15 years	Assets with a life of at least 20 years and less than 25 years
20 years	Assets with a life of at least 25 years

Examples of tangible personal property classified by recovery period are presented in the following table:

Recovery Period	Examples of Eligible Property
3 years	Special tools
5 years	Light duty trucks, automobiles, and computers
7 years	Office furniture and fixtures, and other equipment
10 years	Railroad tank cars
15 years	Industrial generation systems
20 years	Sewer pipes

Real property is classified into three recovery periods. Residential real property is 27.5-year recovery property while nonresidential real property is 31.5-year recovery property (if placed into service after 1986 and before May 13, 1993) or 39-year recovery property (if placed into service after May 12, 1993). Leasehold improvements made to nonresidential real property before 2006 may be depreciated over a 15-year recovery period.

Personal property in the 3-year, 5-year, 7-year, and 10-year recovery period categories is to be depreciated using the 200% declining balance method with a switch to the straight-line method at the point in time when deductions will be maximized (i.e., generally in the middle of the recovery period). The 150% declining balance method is applicable to 15-year and 20-year recovery property. The provision regarding the switch to straight line is also applicable. An election may be made to calculate the cost recovery deduction utilizing the straight line method. The election must be made for all assets placed into service in a particular class in each year.

In general, an additional first-year depreciation deduction is available. The additional deduction is equal to 50% of the property's basis if acquired and placed into service before January 1, 2014. The adjusted basis of qualified property must be reduced by the additional deduction before computing the depreciation deduction otherwise allowable. Further, if Section 179 deduction (discussed later) is claimed, it reduces the adjusted basis of the property eligible for the additional first-year deduction. The additional first-year depreciation deduction is automatic unless an election is made to forgo the additional amount. The election to forgo the additional deduction is required to be made for all assets acquired in a particular recovery class in each year.

Real property must be depreciated utilizing the straight-line method. Classification into residential and nonresidential categories is irrelevant.

Whether the accelerated method or the straight-line method is used for personal property, a half-year convention is applicable in the year the asset is placed into service and in the year the property is disposed of, if prior to the expiration of the recovery period.

The timing of asset purchases must be planned because the "mid-quarter convention" may be triggered. Under the "mid-quarter convention," if more than 40% of the aggregate value of personal property is placed into service during the last quarter of the year, the half-year convention must be replaced by the mid-quarter

convention. With respect to real property, a mid-month convention is to be applied when the asset is placed into service and when the asset is disposed of prior to the expiration of the recovery period.

The *Alternative Depreciation System* (ADS) must be used for certain types of property including personal property used outside of the United States and property leased to tax-exempt entities. ADS, however, may be elected for any class of property placed into service. The recovery deduction will be based on the straight-line method and longer recovery periods. Personal property with no class life will be recovered over 12 years, while real property will be recovered over 40 years. All other property will be recovered over the applicable class life.

Automobiles are included in a special category of property referred to as "listed property."

The annual depreciation deduction for automobiles is dependent upon the year in which the auto was placed into service, because the Internal Revenue Service issues applicable tables annually.

If a business leases an automobile that is used 100% for business purposes, the full lease cost will generally be deductible. However, in order to prevent the avoidance of the "listed property" limitations, the IRS requires that an "add-back" be included in income each year of the automobile's use. The inclusion, which is based on the initial fair market value of the vehicle and the year in which the lease was effected, is adjusted annually for inflation.

The deductible amounts are periodically adjusted for inflation. Listed property not used more than 50% of the time for business must use the alternative depreciation system.

The Sec. 179 election allows the expensing of certain depreciable assets (and off-the-shelf computer software). Under the statute, in lieu of capitalizing the asset and depreciating it, the assets may be expensed in the year they are placed into service. There is, however, an annual limitation as follows:

Tax Year	Annual Limit
2007	125,000
2008	250,000
2009	250,000
2010	500,000
2011	500,000
2012	500,000
2013	500,000
2014	25,000

The annual limitation must be reduced (phased out) dollar for dollar by the amount by which the cost of Sec. 179 property placed into service during the year exceeds \$500,000 in 2007, \$800,000 in 2008 and 2009, \$2,000,000 in 2010 through 2013, and \$200,000 in 2014. Additionally, the deduction cannot be used to create or increase a net operating loss. Furthermore, the deduction must be considered for