Accounting Principles: A Business Perspective, Financial Accounting (Chapters 1 – 8)

A *Textbook Equity* Open College Textbook

originally by

Hermanson, Edwards, and Maher

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Preface from the eight edition:

Philosophy and purpose

Imagine that you have graduated from college without taking an accounting course. You are employed by a company as a sales person, and you eventually become the sales manager of a territory. While attending a sales managers' meeting, financial results are reviewed by the Vice President of Sales and terms such as gross margin percentage, cash flows from operating activities, and LIFO inventory methods are being discussed. The Vice President eventually asks you to discuss these topics as they relate to your territory. You try to do so, but it is obvious to everyone in the meeting that you do not know what you are talking about.

Accounting principles courses teach you the "language of business" so you understand terms and concepts used in business decisions. If you understand how accounting information is prepared, you will be in an even stronger position when faced with a management decision based on accounting information.

The importance of transactions analysis and proper recording of transactions has clearly been demonstrated in some of the recent business failures that have been reported in the press. If the financial statements of an enterprise are to properly represent the results of operations and the financial condition of the company, the transactions must be analyzed and recorded in the accounts following generally accepted accounting principles. The debits and credits are important not only to accounting majors but also to those entering or engaged in a business career to become managers because the ultimate effects of these journal entries are reflected in the financial statements. If expenses are reported as assets, liabilities and their related expenses are omitted from the financial statements, or reported revenues are recorded prematurely or do not really exist, the financial statements are misleading. The financial statements are only useful and meaningful if they are fair and clearly represent the business events of the company.

We wrote this text to give you an understanding of how to use accounting information to analyze business performance and make business decisions. The text takes a business perspective. We use the annual reports of real companies to illustrate many of the accounting concepts. You are familiar with many of the companies we use, such as The Limited, The Home Depot, and Coca-Cola Company.

Gaining an understanding of accounting terminology and concepts, however, is not enough to ensure your success. You also need to be able to find information on the Internet, analyze various

business situations, work effectively as a member of a team, and communicate your ideas clearly. This text was developed to help you develop these skills.

Curriculum concerns

Significant changes have been recommended for accounting education. Some parties have expressed concern that recent accounting graduates do not possess the necessary set of skills to succeed in an accounting career. The typical accounting graduate seems unable to successfully deal with complex and unstructured "real world" accounting problems and generally lacks communication and interpersonal skills. One recommendation is the greater use of active learning techniques in a re-energized classroom environment. The traditional lecture and structured problem solving method approach would be supplemented or replaced with a more informal classroom setting dealing with cases, simulations, and group projects. Both inside and outside the classroom, there would be two-way communication between (1) professor and student and (2) student and student. Study groups would be formed so that students could tutor other students. The purposes of these recommendations include enhancing students' critical thinking skills, written and oral communication skills, and interpersonal skills.

One of the most important benefits you can obtain from a college education is that you "learn how to learn". The concept that you gain all of your learning in school and then spend the rest of your life applying that knowledge is not valid. Change is occurring at an increasingly rapid pace. You will probably hold many different jobs during your career, and you will probably work for many different companies. Much of the information you learn in college will be obsolete in just a few years. Therefore, you will be expected to engage in life-long learning. Memorizing is much less important than learning how to think critically.

With this changing environment in mind, we have developed a text that will lend itself to developing the skills that will lead to success in your future career in business. The section at the end of each chapter titled, "Beyond the numbers—Critical thinking", provides the opportunity for you to address unstructured case situations, the analysis of real companies' financial situations, ethics cases, and team projects. Each chapter also includes one or two **Internet projects** in the section titled "Using the Internet—A view of the real world". For many of these items, you will use written and oral communication skills in presenting your results.

Objectives and overall approach of the eighth edition

The Accounting Education Change Commission (AECC) made specific recommendations regarding teaching materials and methods used in the first-year accounting course. As a result, significant changes have taken place in that course at many universities. The AECC states:

> *The first course in accounting can significantly benefit those who enter business, government, and other organizations, where decision-makers use accounting information. These individuals will be better prepared for their responsibilities if they understand the role of accounting information in decision-making by managers, investors, government regulators, and others. All organizations have accountability responsibilities to their constituents, and accounting, properly used, is a powerful tool in creating information to improve the decisions that affect those constituents.*[1]

One of the purposes of the first course should be to recruit accounting majors. To help accomplish this, the text has a section preceding each chapter entitled, "Careers in accounting".

We retained a solid coverage of accounting that serves business students well regardless of the majors they select. Those who choose not to major in accounting, which is a majority of those taking this course, will become better users of accounting information because they will know something about the preparation of that information.

Approach and organization

Business emphasis

Without actual business experience, business students sometimes lack a frame of reference in attempting to apply accounting concepts to business transactions. We seek to involve the business student more in real world business applications as we introduce and explain the subject matter.

- **"An accounting perspective: Business insight"** boxes throughout the text provide examples of how companies featured in text examples use accounting information every day, or they provide other useful information.

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1 Accounting Education Change Commission, Position Statement No. Two, "The First Course in Account" (Torrance, CA, June 1992), pp. 1-2.

- **"Accounting perspective: Uses of technology"** boxes throughout the text demonstrate how technology has affected the way accounting information is prepared, manipulated, and accessed.
- Some chapters contain **"A broader perspective"**. These situations, taken from annual reports of real companies and from articles in current business periodicals such as *Accounting Today*, and *Management Accounting*, relate to subject matter discussed in that chapter or present other useful information. These real world examples demonstrate the business relevance of accounting.
- Real world questions and real world business decision cases are included in almost every chapter.
- The annual report appendix included with this text contains significant portions of the annual report of The Limited, Inc. Many of the real world questions and business decision cases are based on this annual report.
- Numerous illustrations adapted from *Accounting Trends & Techniques* show the frequency of use in business of various accounting techniques. Placed throughout the text, these illustrations give students real world data to consider while learning about different accounting techniques.
- Throughout the text we have included numerous references to the annual reports of many companies.
- Chapters 1-16 contain a section entitled, "Analyzing and using the financial results". This section discusses and illustrates a ratio or other analysis technique that pertains to the content of the chapter. For instance, this section in Chapter 4 discusses the current ratio as it relates to a classified balance sheet.
- Some of the chapters contain end-of-chapter questions, exercises, or business decision cases that require the student to refer to the Annual report appendix and answer certain questions. As stated earlier, this appendix is included with the text and contains the significant portions of the annual report of The Limited, Inc.
- Each chapter contains a section entitled, "Beyond the numbers—Critical thinking". This section contains business decision cases, annual report analysis problems, writing assignments based on the Ethical perspective and Broader perspective boxes, group projects, and Internet projects.

Pedagogy

Students often come into accounting principles courses feeling anxious about learning the subject matter. Recognizing this apprehension, we studied ways to make learning easier and came up with some helpful ideas on how to make this edition work even better for students.

- Improvements in the text's content reflect feedback from adopters, suggestions by reviewers, and a serious study of the learning process itself by the authors and editors. New subject matter is introduced only after the stage has been set by transitional paragraphs between topic headings. These paragraphs provide students with the reasons for proceeding to the new material and explain the progression of topics within the chapter.
- The Introduction contains a section entitled "How to study the chapters in this text", which should be very helpful to students.
- Each chapter has an "Understanding the learning objectives" section. These "summaries" enable the student to determine how well the learning objectives were accomplished. We were the first authors (1974) to ever include Learning objectives in an accounting text. These objectives have been included at the beginning of the chapter, as marginal notes within the chapter, at the end of the chapter, and in supplements such as the Test bank, Instructors' resource guide, Computerized test bank, and Study guide. The objectives are also indicated for each exercise and problem.
- Demonstration problems and solutions are included for each chapter, and a different one appears for each chapter in the Study guide. These demonstration problems help students to assess their own progress by showing them how problems that focus on the topic(s) covered in the chapter are worked before students do assigned homework problems.
- Key terms are printed for emphasis. End-of-chapter glossaries contain the definition.
- Each chapter includes a "Self-test" consisting of true-false and multiple-choice questions. The answers and explanations appear at the end of the chapter. These self-tests are designed to determine whether the student has learned the essential information in each chapter.
- In the margin beside each exercise and problem, we have included a description of the requirements and the related Learning objective(s). These descriptions let students know what they are expected to do in the problem.
- Throughout the text we use examples taken from everyday life to relate an accounting concept being introduced or discussed to students' experiences.

Ethics

There is no better time to emphasize high ethical standards to students. This text includes many items throughout the text entitled, "An ethical perspective". These items present situations in which students are likely to find themselves throughout their careers. They range from resisting pressure by a superior or a client to do the wrong thing to deciding between alternative corporate behaviors that have environmental and profit consequences.

End-of-chapter materials

Describing teaching methods, the AECC stated, "Teachers...should place a priority on their interaction with students and on interaction among students. Students' involvement should be promoted by methods such as cases, simulations, and group projects..."[2] A section entitled "Beyond the numbers—Critical thinking" at the end of every chapter is designed to implement these recommendations. Business decision cases require critical thinking in complex situations often based on real companies. The Annual report analysis section requires analyzing annual reports and interpreting the results in writing. The Ethics cases require students to respond in writing to situations they are likely to encounter in their careers. These cases do not necessarily have one right answer. The Group projects for each chapter teach students how to work effectively in teams, a skill that was stressed by the AECC and is becoming increasingly necessary for success in business. The Internet projects teach students how to retrieve useful information from the Internet.

A team approach can also be introduced in the classroom using the regular exercises and problems in the text. Teams can be assigned the task of presenting their solutions to exercises or problems to the rest of the class. Using this team approach in class can help re-energize the classroom by creating an active, informal environment in which students learn from each other. (Two additional group projects are described in the Instructor's resource guide. These projects are designed to be used throughout the semester or quarter.)

We have included a vast amount of other resource materials for each chapter within the text from which the instructor may draw: (1) one of the largest selections of end-of-chapter questions, exercises, and problems available; (2) several comprehensive review problems that allow students to review all major concepts covered to that point; and (3) from one to three business decision cases per chapter. Other key features regarding end-of-chapter material follow.

2Ibid, p.2.

- A uniform chart of accounts appears in a separate file you can download. This uniform chart of accounts is used consistently throughout the first 11 chapters. We believe students will benefit from using the same chart of accounts for all homework problems in those chapters.
- A comprehensive review problem at the end of Chapter 4 serves as a mini practice set to test all material covered to that point. Another comprehensive problem at the end of Chapter 19 reviews the material covered in Chapters 18 and 19. Two comprehensive budgeting problems are also included as business decision cases at the end of Chapter 23.
- Some of the end-of-chapter problem materials (questions, exercises, problems, business decision cases, other "Beyond the numbers" items, and comprehensive review problems) have been updated. Each exercise and problem is identified with the learning objective(s) to which it relates.
- All end-of-chapter exercises and problems have been traced back to the chapters to ensure that nothing is asked of a student that does not appear in the book. This feature was a strength of previous editions, ensuring that instructors could confidently assign problems without having to check for applicability. Also, we took notes while teaching from the text and clarified problem and exercise instructions that seemed confusing to our students.

Table of Contents

1 The Accounting Environment....14

1.1 Learning objectives....14
1.2 Accounting Defined....15
1.3 Employment opportunities in accounting....17
1.4 Financial accounting versus managerial accounting....21
1.5 Development of financial accounting standards....23
1.6 Ethical behavior of accountants....25
1.7 Critical thinking and communication skills....26
1.8 Internet skills....27
1.9 How to study the chapters in this text....27

2 Accounting and its use in business decisions....30

2.1 Learning objectives....30
2.2 A career as an entrepreneur....30
2.3 Forms of business organizations....31
2.4 Types of activities performed by business organizations....33
2.5 Financial statements of business organizations....34
2.6 The financial accounting process....39
2.7 Underlying assumptions or concepts....40
2.8 Transactions affecting only the balance sheet....41
2.9 Transactions affecting the income statement and/or balance sheet....45
2.10 Summary of balance sheet and income statement transactions....48
2.11 Dividends paid to owners (stockholders)....49
2.12 Analyzing and using the financial results—the equity ratio....52
2.13 Understanding the learning objectives....53
2.14 Appendix: A comparison of corporate accounting with accounting for a sole proprietorship and a partnership....54
2.15 Demonstration problem....55
2.16 Solution to demonstration problem....57
2.17 Key terms....58
2.18 Self-test....60

3 Recording business transactions....77

3.1 Learning objectives....77
3.2 Salary potential of accountants....77
3.3 The account and rules of debit and credit....79
3.4 Recording changes in assets, liabilities, and stockholders' equity....81

3.5 The accounting cycle.......86
3.6 The journal.......87
3.7 The ledger.......90
3.8 The accounting process in operation.......91
3.9 The use of ledger accounts.......105
3.10 Analyzing and using the financial results— Horizontal and vertical analyses.......115
3.11 Key terms.......123
3.12 Self-test.......124

4 Adjustments for financial reporting.......144

4.1 Learning objectives.......144
4.2 A career as a tax specialist.......144
4.3 Cash versus accrual basis accounting.......145
4.4 The need for adjusting entries.......147
4.5 Classes and types of adjusting entries.......149
4.6 Adjustments for deferred items.......151
4.7 Adjustments for accrued items.......162
4.8 Effects of failing to prepare adjusting entries.......166
4.9 Analyzing and using the financial results—trend percentages.......166
4.10 Understanding the learning objectives.......167

5 Completing the accounting cycle.......190

5.1 Learning objectives.......190
5.2 A career in information systems.......190
5.3 The accounting cycle summarized.......191
5.4 The work sheet.......191
5.5 Preparing financial statements from the work sheet.......199
5.6 Journalizing adjusting entries.......200
5.7 The closing process.......201
5.8 Accounting systems: From manual to computerized.......210
5.9 A classified balance sheet.......216
5.10 Analyzing and using the financial results — the current ratio.......223
5.11 Understanding the learning objectives.......224

6 Accounting theory.......254

6.1 Learning objectives.......254
6.2 A career as an accounting professor.......254
6.3 Traditional accounting theory.......255
6.4 Underlying assumptions or concepts.......256
6.5 Other basic concepts.......258
6.6 The measurement process in accounting.......259
6.7 The major principles.......260
6.8 Modifying conventions (or constraints).......268
6.9 The financial accounting standards board's conceptual framework project.......270

6.10 Objectives of financial reporting....271
6.11 Qualitative characteristics....273
6.12 The basic elements of financial statements....277
6.13 Recognition and measurement in financial statements....279
6.14 Summary of significant accounting policies....279
6.15 Significant accounting policies....280
6.16 Understanding the learning objectives....283

7 Introduction to inventories and the classified income statement....303

7.1 Learning objective....303
7.2 A career as a CEO....303
7.3 Two income statements compared— Service company and merchandising company 305
7.4 Sales revenues....305
7.5 Cost of goods sold....313
7.6 Classified income statement....324
7.7 Analyzing and using the financial results—Gross margin percentage....329
7.8 Understanding the learning objectives....329
7.9 Appendix: The work sheet for a merchandising company....331
7.10 Key terms....338
7.11 Self-test....340

8 Measuring and reporting inventories....359

8.1 Learning objectives....359
8.2 Choosing an accounting career....359
8.3 Inventories and cost of goods sold....360
8.4 Importance of proper inventory valuation....361
8.5 Determining inventory cost....363
8.6 Departures from cost basis of inventory measurement....387
8.7 Analyzing and using financial results—inventory turnover ratio....395
8.8 Understanding the learning objectives....395

Appendix "The Limited, Inc" 2000 Financials

Alphabetical Index....427

1 The Accounting Environment

1.1 Learning objectives

After studying this introduction, you should be able to:

- Define accounting.
- Describe the functions performed by accountants.
- Describe employment opportunities in accounting.
- Differentiate between financial and managerial accounting.
- Identify several organizations that have a role in the development of financial accounting standards.

You have embarked on the challenging and rewarding study of accounting—an old and time-honored discipline. History indicates that all developed societies require certain accounting records. Record-keeping in an accounting sense is thought to have begun about 4000 BCE

The record-keeping, control, and verification problems of the ancient world had many characteristics similar to those we encounter today. For example, ancient governments also kept records of receipts and disbursements and used procedures to check on the honesty and reliability of employees.

A study of the evolution of accounting suggests that accounting processes have developed primarily in response to business needs. Also, economic progress has affected the development of accounting processes. History shows that the higher the level of civilization, the more elaborate the accounting methods.

The emergence of double-entry bookkeeping was a crucial event in accounting history. In 1494, a Franciscan monk, Luca Pacioli, described the double-entry Method of Venice system in his text called *Summa de Arithmetica, Geometric, Proportion et Proportionate* (Everything about arithmetic, geometry, and proportion). Many consider Pacioli's *Summa* to be a reworked version of a manuscript that circulated among teachers and pupils of the Venetian school of commerce and arithmetic.

Since Pacioli's days, the roles of accountants and professional accounting organizations have expanded in business and society. As professionals, accountants have a responsibility for placing public service above their commitment to personal economic gain. Complementing their obligation to society, accountants have analytical and evaluative skills needed in the solution of ever-growing world

problems. The special abilities of accountants, their independence, and their high ethical standards permit them to make significant and unique contributions to business and areas of public interest.

You probably will find that of all the business knowledge you have acquired or will learn, the study of accounting will be the most useful. Your financial and economic decisions as a student and consumer involve accounting information. When you file income tax returns, accounting information helps determine your taxes payable. Understanding the discipline of accounting also can influence many of your future professional decisions. You cannot escape the effects of accounting information on your personal and professional life.

Every profit-seeking business organization that has economic resources, such as money, machinery, and buildings, uses accounting information. For this reason, accounting is called the language of business. Accounting also serves as the language providing financial information about not-for-profit organizations such as governments, churches, charities, fraternities, and hospitals. However, this text concentrates on accounting for business firms.

The accounting system of a profit-seeking business is an information system designed to provide relevant financial information on the resources of a business and the effects of their use. Information is relevant if it has some impact on a decision that must be made. Companies present this relevant information in their financial statements. In preparing these statements, accountants consider the users of the information, such as owners and creditors, and decisions they make that require financial information.

As a background for studying accounting, this Introduction defines accounting and lists the functions accountants perform. In addition to surveying employment opportunities in accounting, it differentiates between financial and managerial accounting. Because accounting information must conform to certain standards, we discuss several prominent organizations contributing to these standards. As you continue your study of accounting in this text, accounting—the language of business—will become your language also. You will realize that you are constantly exposed to accounting information in your everyday life.

1.2 Accounting Defined

The American Accounting Association—one of the accounting organizations discussed later in this Introduction—defines accounting as "the process of identifying, measuring, and communicating

economic information to permit informed judgments and decisions by the users of the information".[1] This information is primarily financial—stated in money terms. Accounting, then, is a measurement and communication process used to report on the activities of profit-seeking business organizations and not-for-profit organizations. As a measurement and communication process for business, accounting supplies information that permits informed judgments and decisions by users of the data.

The accounting process provides financial data for a broad range of individuals whose objectives in studying the data vary widely. Bank officials, for example, may study a company's financial statements to evaluate the company's ability to repay a loan. Prospective investors may compare accounting data from several companies to decide which company represents the best investment. Accounting also supplies management with significant financial data useful for decision making.

Reliable information is necessary before decision makers can make a sound decision involving the allocation of scarce resources. Accounting information is valuable because decision makers can use it to evaluate the financial consequences of various alternatives. Accountants eliminate the need for a crystal ball to estimate the future. They can reduce uncertainty by using professional judgment to quantify the future financial impact of taking action or delaying action.

Although accounting information plays a significant role in reducing uncertainty within the organization, it also provides financial data for persons outside the company. This information tells how management has discharged its responsibility for protecting and managing the company's resources. Stockholders have the right to know how a company is managing its investments. In fulfilling this obligation, accountants prepare financial statements such as an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows. In addition, they prepare tax returns for federal and state governments, as well as fulfill other governmental filing requirements.

Accounting is often confused with bookkeeping. Bookkeeping is a mechanical process that records the routine economic activities of a business. Accounting includes bookkeeping but goes well beyond it in scope. Accountants analyze and interpret financial information, prepare financial statements, conduct audits, design accounting systems, prepare special business and financial studies, prepare forecasts and budgets, and provide tax services.

Specifically the accounting process consists of the following groups of functions (see Exhibit 1 below):

---

1 American Accounting Association, *A Statement of Basic Accounting Theory* (Evanston, III., 1966), p. 1.

- Accountants observe many events (or activities) and identify and measure in financial terms (dollars) those events considered evidence of economic activity. (Often, these three functions are collectively referred to as analyze.) The purchase and sale of goods and services are economic events.
- Next, the economic events are recorded, classified into meaningful groups, and summarized.
- Accountants report on economic events (or business activity) by preparing financial statements and special reports. Often accountants interpret these statements and reports for various groups such as management, investors, and creditors. Interpretation may involve determining how the business is performing compared to prior years and other similar businesses.

1.3 Employment opportunities in accounting

During the last half-century, accounting has gained the same professional status as the medical and legal professions. Today, the accountants in the United States number well over a million. In addition, several million people hold accounting-related positions. Typically, accountants provide services in various branches of accounting. These include public accounting, management (industrial) accounting, governmental or other not-for-profit accounting, and higher education. The demand for accountants will likely increase dramatically in the future. This increase is greater than for any other profession. You may want to consider accounting as a career.

Public accounting firms offer professional accounting and related services for a fee to companies, other organizations, and individuals. An accountant may become a **Certified Public Accountant** (CPA) by passing an examination prepared and graded by the American Institute of Certified Public Accountants (AICPA). The exam is administered by computer. In addition to passing the exam, CPA candidates must meet other requirements, which include obtaining a state license. These requirements vary by state. A number of states require a CPA candidate to have completed specific accounting courses and earned a certain number of college credits (five years of study in many states); worked a certain number of years in public accounting, industry, or government; and lived in that state a certain length of time before taking the CPA examination. As of the year 2000, five years of course work were required to become a member of the AICPA.

After a candidate passes the CPA examination, some states (called one-tier states) insist that the candidate meet all requirements before the state grants the CPA certificate and license to practice. Other states (called two-tier states) issue the CPA certificate immediately after the candidate passes the exam. However, these states issue the license to practice only after all other requirements have been met. CPAs who want to renew their licenses to practice must stay current through continuing

professional education programs and must prove that they have done so. No one can claim to be a CPA and offer the services normally provided by a CPA unless that person holds an active license to practice.

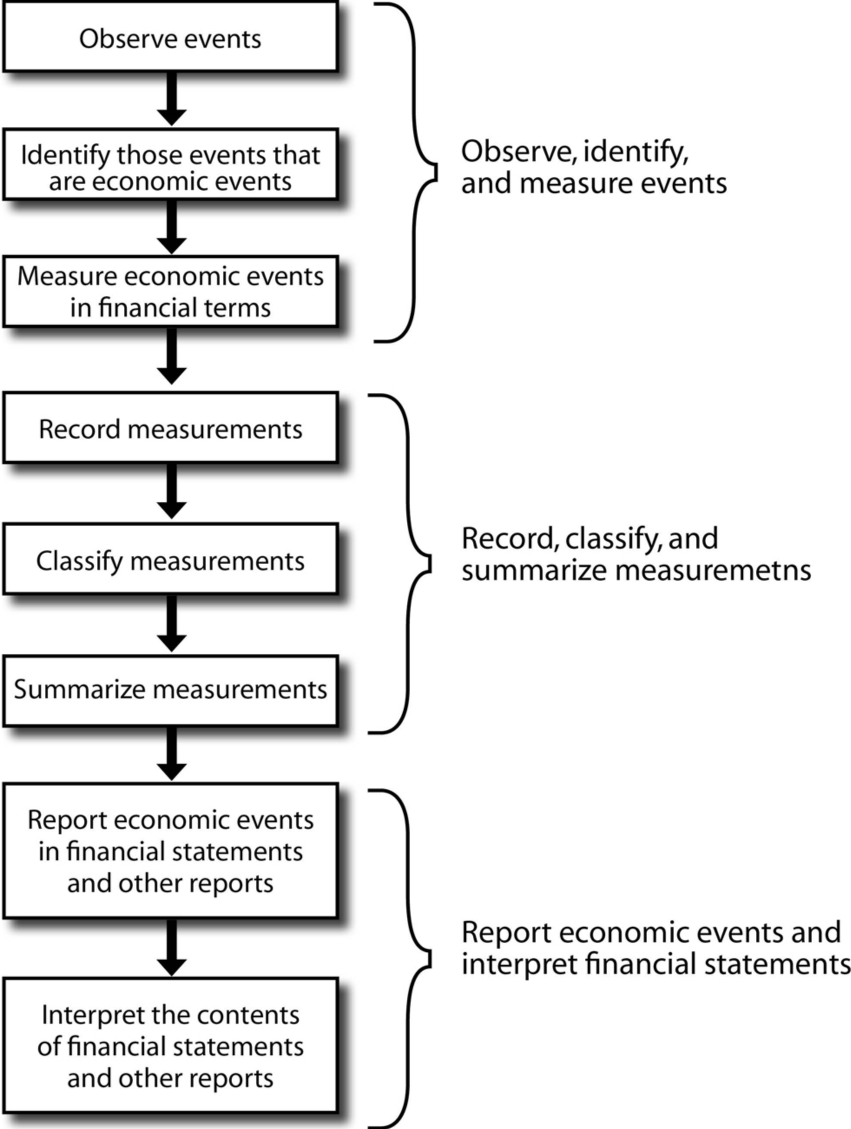

Exhibit 1: Functions performed by accountants

The public accounting profession in the United States consists of the Big-Four international CPA firms, several national firms, many regional firms, and numerous local firms. The Big-Four firms include Deloitte & Touche, Ernst & Young, KPMG, and Pricewaterhouse Coopers. At all levels, these public accounting firms provide auditing, tax, and, for nonaudit clients, management advisory (or consulting) services.

Auditing A business seeking a loan or attempting to have its securities traded on a stock exchange usually must provide financial statements to support its request. Users of a company's financial statements are more confident that the company is presenting its statements fairly when a CPA has audited the statements. For this reason, companies hire CPA firms to conduct examinations (**independent audits**) of their accounting and related records. **Independent auditors** of the CPA firm check some of the company's records by contacting external sources. For example, the accountant may contact a bank to verify the cash balances of the client. After completing a company audit, independent auditors give an **independent auditor's opinion or report**. (For an example of an auditor's opinion, see The Limited, Inc. annual report in the Annual report appendix at the end of the text.) This report states whether the company's financial statements fairly (equitably) report the economic performance and financial condition of the business. As you will learn in the next section, auditors within a business also conduct audits, which are not independent audits. Currently auditing standards are established by the Public Company Accounting Oversight Board.

In 2002 The Sarbanes-Oxley Act was passed. The Act was passed as one result of the large losses to the employees and investors from accounting fraud situations involving companies such as Enron and WorldCom. The Act created the Public Company Accounting Oversight Board. The Board consists of five members appointed and overseen by the Securities and Exchange Commission. The Board oversees and investigates the audits and auditors of public companies and can sanction both firms and individuals for violations of laws, regulations, and rules. The Chief Executive Officer and Chief Financial Officer of a public company must now certify the company's financial statements. Corporate audit committees, rather than the corporate management, are now responsible for hiring, compensating, and overseeing the external auditors.

Tax services CPAs often provide expert advice on tax planning and preparing federal, state, and local tax returns. The objective in preparing tax returns is to use legal means to minimize the taxes paid. Almost every major business decision has a tax impact. Tax planning helps clients know the tax effects of each financial decision.

Management advisory (or consulting) services Before Sarbanes-Oxley management advisory services were the fastest growing service area for most large and many smaller CPA firms. Management

frequently identifies projects for which it decides to retain the services of a CPA. However, the Sarbanes-Oxley Act specifically prohibits providing certain types of consulting services to a publicly-held company by its external auditor. These services include bookkeeping, information systems design and implementation, appraisals or valuation services, actuarial services, internal audits, management and human resources services, broker/dealer and investment services, and legal or expert services related to audit services. Accounting firms can perform many of these services for publicly held companies they do not audit. Other services not specifically banned are allowed if pre-approved by the company's audit committee.

In contrast to public accountants, who provide accounting services for many clients, management accountants provide accounting services for a single business. In a company with several management accountants, the person in charge of the accounting activity is often the **controller** or **chief financial officer**.

Management accountants may or may not be CPAs. If management accountants pass an examination prepared and graded by the Institute of Certified Management Accountants (ICMA) and meet certain other requirements, they become **Certified Management Accountants (CMAs**). The ICMA is an affiliate of the Institute of Management Accountants, an organization primarily consisting of management accountants employed in private industry.

A career in management accounting can be very challenging and rewarding. Many management accountants specialize in one particular area of accounting. For example, some may specialize in measuring and controlling costs, others in budgeting (the development of plans for future operations), and still others in financial accounting and reporting. Many management accountants become specialists in the design and installation of computerized accounting systems. Other management accountants are **internal auditors** who conduct **internal audits**. They ensure that the company's divisions and departments follow the policies and procedures of management. This last group of management accountants may earn the designation of **Certified Internal Auditor (CIA).** The Institute of Internal Auditors (IIA) grants the CIA certificate to accountants after they have successfully completed the IIA examination and met certain other requirements.

Many accountants, including CPAs, work in **governmental and other not-for-profit accounting**. They have essentially the same educational background and training as accountants in public accounting and management accounting.

Governmental agencies at the federal, state, and local levels employ governmental accountants. Often the duties of these accountants relate to tax revenues and expenditures. For example, Internal Revenue Service employees use their accounting backgrounds in reviewing tax returns and

investigating tax fraud. Government agencies that regulate business activity, such as a state public service commission that regulates public utilities (e.g. telephone company, electric company), usually employ governmental accountants. These agencies often employ governmental accountants who can review and evaluate the utilities' financial statements and rate increase requests. Also, FBI agents trained as accountants find their accounting backgrounds useful in investigating criminals involved in illegal business activities, such as drugs or gambling.

Not-for-profit organizations, such as churches, charities, fraternities, and universities, need accountants to record and account for funds received and disbursed. Even though these agencies do not have a profit motive, they should operate efficiently and use resources effectively.

Approximately 10,000 accountants are employed in higher education. The activities of these **academic accountants** include teaching accounting courses, conducting scholarly and applied research and publishing the results, and performing service for the institution and the community. Faculty positions exist in two-year colleges, four-year colleges, and universities with graduate programs. A significant shortage of accounting faculty has developed due to the retirement beginning in the late 1990s of many faculty members. Starting salaries will continue to rise significantly because of the shortage. You may want to talk with some of your professors about the advantages and disadvantages of pursuing an accounting career in higher education.

A section preceding each chapter, entitled "Careers in accounting", describes various accounting careers. You might find one that you would like to pursue.

1.4 Financial accounting versus managerial accounting

An accounting information system provides data to help decision makers both outside and inside the business. Decision makers outside the business are affected in some way by the performance of the business. Decision makers inside the business are responsible for the performance of the business. For this reason, accounting is divided into two categories: financial accounting for those outside and managerial accounting for those inside.

Financial accounting information appears in financial statements that are intended primarily for external use (although management also uses them for certain internal decisions). Stockholders and creditors are two of the outside parties who need financial accounting information. These outside parties decide on matters pertaining to the entire company, such as whether to increase or decrease their investment in a company or to extend credit to a company. Consequently, financial accounting information relates to the company as a whole, while managerial accounting focuses on the parts or segments of the company.

Management accountants in a company prepare the financial statements. Thus, management accountants must be knowledgeable concerning financial accounting and reporting. The financial statements are the representations of management, not the CPA firm that performs the audit.

The external users of accounting information fall into six groups; each has different interests in the company and wants answers to unique questions. The groups and some of their possible questions are:

- **Owners and prospective owners**. Has the company earned satisfactory income on its total investment? Should an investment be made in this company? Should the present investment be increased, decreased, or retained at the same level? Can the company install costly pollution control equipment and still be profitable?
- **Creditors and lenders.** Should a loan be granted to the company? Will the company be able to pay its debts as they become due?
- **Employees and their unions.** Does the company have the ability to pay increased wages? Is the company financially able to provide long-term employment for its workforce?
- **Customers.** Does the company offer useful products at fair prices? Will the company survive long enough to honor its product warranties?
- **Governmental units.** Is the company, such as a local public utility, charging a fair rate for its services?
- **General public.** Is the company providing useful products and gainful employment for citizens without causing serious environmental problems?

General-purpose financial statements provide much of the information needed by external users of financial accounting. These **financial statements** are formal reports providing information on a company's financial position, cash inflows and outflows, and the results of operations. Many companies publish these statements in annual reports. (See The Limited, Inc., annual report in the Annual report appendix.) The **annual report** also contains the independent auditor's opinion as to the fairness of the financial statements, as well as information about the company's activities, products, and plans.

Financial accounting information is historical in nature, reporting on what has happened in the past. To facilitate comparisons between companies, this information must conform to certain accounting standards or principles called **generally accepted accounting principles (GAAP)**. These generally accepted accounting principles for businesses or governmental organizations have developed through accounting practice or been established by an authoritative organization. We describe several of these authoritative organizations in the next major section of this Introduction.

Managerial accounting information is for internal use and provides special information for the managers of a company. The information managers use may range from broad, long-range planning data to detailed explanations of why actual costs varied from cost estimates. Managerial accounting information should:

- Relate to the part of the company for which the manager is responsible. For example, a production manager wants information on costs of production but not of advertising.
- Involve planning for the future. For instance, a budget would show financial plans for the coming year.
- Meet two tests: the accounting information must be useful (relevant) and must not cost more to gather and process than it is worth.

Managerial accounting generates information that managers can use to make sound decisions. The four major types of internal management decisions are:

- **Financial decisions**—deciding what amounts of capital (funds) are needed to run the business and whether to secure these funds from owners (stockholders) or creditors. In this sense, capital means money used by the company to purchase resources such as machinery and buildings and to pay expenses of conducting the business.
- **Resource allocation decisions**—deciding how the total capital of a company is to be invested, such as the amount to be invested in machinery.
- **Production decisions**—deciding what products are to be produced, by what means, and when.
- **Marketing decisions**—setting selling prices and advertising budgets; determining the location of a company's markets and how to reach them.

1.5 Development of financial accounting standards

Several organizations are influential in the establishment of generally accepted accounting principles (GAAP) for businesses or governmental organizations. These are the American Institute of Certified Public Accountants, the Financial Accounting Standards Board, the Governmental Accounting Standards Board, the Securities and Exchange Commission, the American Accounting Association, the Financial Executives Institute, and the Institute of Management Accountants. Each organization has contributed in a different way to the development of GAAP.

The American Institute of Certified Public Accountants (AICPA) is a professional organization of CPAs. Many of these CPAs are in public accounting practice. Until recent years, the AICPA was the dominant organization in the development of accounting standards. In a 20-year period ending in

1959, the AICPA Committee on Accounting Procedure issued 51 *Accounting Research Bulletins* recommending certain principles or practices. From 1959 through 1973, the committee's successor, the **Accounting Principles Board (APB)**, issued 31 numbered *Opinions* that CPAs generally are required to follow. Through its monthly magazine, the *Journal of Accountancy*, its research division, and its other divisions and committees, the AICPA continues to influence the development of accounting standards and practices. Two of its committees—the Accounting Standards Committee and the Auditing Standards Committee—are particularly influential in providing input to the Financial Accounting Standards Board (the current rule-making body) and to the Securities and Exchange Commission and other regulatory agencies.

In 1973, an independent, seven-member, full-time **Financial Accounting Standards Board (FASB)** replaced the Accounting Principles Board. The FASB has issued numerous *Statements of Financial Accounting Standards*. The old *Accounting Research Bulletins* and *Accounting Principles Board Opinions* are still effective unless specifically superseded by a Financial Accounting Standards Board Statement. The FASB is the *private sector* organization now responsible for the development of new financial accounting standards.

The Emerging Issues Task Force of the FASB interprets official pronouncements for general application by accounting practitioners. The conclusions of this task force must also be followed in filings with the Securities and Exchange Commission.

In 1984, the **Governmental Accounting Standards Board (GASB)** was established with a full-time chairperson and four part-time members. The GASB issues statements on accounting and financial reporting in the governmental area. This organization is the *private sector* organization now responsible for the development of new governmental accounting concepts and standards. The GASB also has the authority to issue interpretations of these standards.

Created under the Securities and Exchange Act of 1934, the **Securities and Exchange Commission (SEC)** is a government agency that administers important acts dealing with the interstate sale of securities (stocks and bonds). The SEC has the authority to prescribe accounting and reporting practices for companies under its jurisdiction. This includes virtually every major US business corporation. Instead of exercising this power, the SEC has adopted a policy of working closely with the accounting profession, especially the FASB, in the development of accounting standards. The SEC indicates to the FASB the accounting topics it believes the FASB should address.

Consisting largely of accounting educators, the **American Accounting Association (AAA)** has sought to encourage research and study at a theoretical level into the concepts, standards, and principles of accounting. One of its quarterly magazines, *The Accounting Review*, carries many articles

reporting on scholarly accounting research. Another quarterly journal, *Accounting Horizons*, reports on more practical matters directly related to accounting practice. A third journal, *Issues in Accounting Education*, contains articles relating to accounting education matters. Students may join the AAA as associate members by contacting the American Accounting Association, 5717 Bessie Drive, Sarasota, Florida 34233.

The **Financial Executives Institute** is an organization established in 1931 whose members are primarily financial policy-making executives. Many of its members are chief financial officers (CFOs) of very large corporations. The role of the CFO has evolved in recent years from number cruncher to strategic planner. These CFOs played a major role in restructuring American businesses in the early 1990s. Slightly more than 14,000 financial officers, representing approximately 7,000 companies in the United States and Canada, are members of the FEI. Through its Committee on Corporate Reporting (CCR) and other means, the FEI is very effective in representing the views of the private financial sector to the FASB and to the Securities and Exchange Commission and other regulatory agencies.

The **Institute of Management Accountants** (formerly the National Association of Accountants) is an organization with approximately 70,000 members, consisting of management accountants in private industry, CPAs, and academics. The primary focus of the organization is on the use of management accounting information for internal decision making. However, management accountants prepare the financial statements for external users. Thus, through its Management Accounting Practices (MAP) Committee and other means, the IMA provides input on financial accounting standards to the Financial Accounting Standards Board and to the Securities and Exchange Commission and other regulatory agencies.

Many other organizations such as the Financial Analysts Federation (composed of investment advisers and investors), the Securities Industry Associates (composed of investment bankers), and CPA firms have committees or task forces that respond to Exposure Drafts of proposed FASB Statements. Their reactions are in the form of written statements sent to the FASB and testimony given at FASB hearings. Many individuals also make their reactions known to the FASB.

1.6 Ethical behavior of accountants

Several accounting organizations have codes of ethics governing the behavior of their members. For instance, both the American Institute of Certified Public Accountants and the Institute of Management Accountants have formulated such codes. Many business firms have also developed codes of ethics for their employees to follow.

Ethical behavior involves more than merely making sure you are not violating a code of ethics. Most of us sense what is right and wrong. Yet get-rich-quick opportunities can tempt many of us. Almost any day, newspaper headlines reveal public officials and business leaders who did not do the right thing. Greed won out over their sense of right and wrong. These individuals followed slogans such as: "Get yours while the getting is good"; "Do unto others before they do unto you"; and "You have done wrong only if you get caught". More appropriate slogans might be: "If it seems too good to be true, it usually is"; "There are no free lunches"; and the golden rule, "Do unto others as you would have them do unto you".

An accountant's most valuable asset is an honest reputation. Those who take the high road of ethical behavior receive praise and honor; they are sought out for their advice and services. They also like themselves and what they represent. Occasionally, accountants do take the low road and suffer the consequences. They sometimes find their names mentioned in *The Wall Street Journal* and news programs in an unfavorable light, and former friends and colleagues look down on them. Some of these individuals are removed from the profession. Fortunately, the accounting profession has many leaders who have taken the high road, gained the respect of friends and colleagues, and become role models for all of us to follow.

Many chapters in the text include an ethics case entitled, "An ethical perspective". We know you will benefit from thinking about the situational ethics in these cases. Often you will not have much difficulty in determining "right and wrong". Instead of making the cases "close calls", we have attempted to include situations business students might actually encounter in their careers.

1.7 Critical thinking and communication skills

Accountants in practice and business executives have generally been dissatisfied with accounting graduates' ability to think critically and to communicate their ideas effectively. The Accounting Education Change Commission has recommended that changes be made in the education of accountants to remove these complaints.

To address these concerns, we have included a section at the end of each chapter entitled, "Beyond the numbers—Critical thinking". In that section, you are required to work relatively unstructured business decision cases, analyze real-world annual report data, write about situations involving ethics, and participate in group projects. Most of the other end-of-chapter materials also involve analysis and written communication of ideas.

In some of the cases, (analysis, ethics situations, and group projects), you are asked to write a memorandum regarding the situation. In writing such a memorandum, identify your role (auditor,

consultant), the audience (management, stockholders, and creditors), and the task (the specific assignment). Present your ideas clearly and concisely.

The purpose of the group projects is to assist you in learning to listen to and work with others. These skills are important in succeeding in the business world. Team players listen to the views of others and work cohesively with them to achieve group goals.

1.8 Internet skills

The Internet is a fact of life. It is important for accountants and students to be able to use the Internet to find relevant information. Thus, each chapter contains approximately two Internet projects related to accounting. Your instructor might assign some of these, or you could pursue them on your own.

1.9 How to study the chapters in this text

In studying each chapter:

- Begin by reading the learning objectives at the beginning of each chapter.
- Read "Understanding the learning objectives" at the end of the chapter for a preview of the chapter content.
- Read the chapter content. Each exercise at the end of the chapters identifies the learning objective(s) to which it pertains. If you learn best by reading about a concept and then working a short exercise that illustrates that concept, work the exercises as you read the chapter.
- Reread "Understanding the learning objectives" to determine if you have achieved each objective.
- Study the Key terms to see if you understand each term. If you do not understand a certain term, refer to the page indicated to read about the term in its original context.
- Take the Self-test and then check your answers with those at the end of the chapter.
- Work the Demonstration problem to further reinforce your understanding of the chapter content. Then, compare your solution to the correct solution that follows immediately.
- Look over the questions at the end of the chapter and think out an answer to each one. If you cannot answer a particular question, refer back into the chapter for the needed information.
- Work at least some of the exercises at the end of the chapter.
- Work the Problems assigned by your instructor, using the forms available. They can be downloaded from the publisher's website (www.freeloadpress.com).

- Study the items in the "Beyond the numbers—Critical thinking" section and the "Using the Internet—A view of the real world" section at the end of each chapter to relate what you have learned to real-world situations.
- Work the Study guide for the chapter. The Study guide is a supplement that contains (for each chapter) Learning objectives; Demonstration problem and solution (different from the one in the text); Matching, Completion, True-false, and Multiple-choice questions; and Solutions to all questions and exercises in the study guide. The Study guide can be downloaded from the publisher's website (www.freeloadpress.com).

If you perform each of these steps for each chapter, you should do well in the course. Remember that a knowledge of accounting will serve you well regardless of the career you pursue.

International accounting standards

In recent years, there has been a movement to develop a single set of global accounting standards for use around the world. Proponents of this movement say that it will boost cross-border investment, deepen international capital markets and save multinational companies, who must currently report under multiple systems, a lot of time and money. The International Accounting Standards Committee (IASC) Foundation was established as an independent, not-for profit, private sector organisation to work towards this goal. It seeks to develop a globally accepted set of financial reporting standards (IFRSs) under the direction of its standards-setting body, the International Accounting Standards Board (IASB). The AICPA (as well as the other entities mentioned above) supports this effort and, as of early 2010, states on its website that:
"The growing acceptance of International Financial Reporting Standards (IFRS) as a basis for U.S. financial reporting represents a fundamental change for the U.S. accounting profession. Today approximately 113 countries require or allow the use of IFRS for the preparation of financial statements by publicly held companies. In the United States, the Securities and Exchange Commission (SEC) has been taking steps to set a date to allow U.S. public companies to use IFRS, and perhaps make its adoption mandatory. In fact, on November 14, 2008, the SEC released for public comment a proposed roadmap with a timeline and key milestones for adopting IFRS beginning in 2014". Clearly, many new issues can emerge between now and 2014, but the direction seems to be clear. The AICPA has a link on its website to a page with current

information on the planned migration to IFRS. You might like to check it out from time to time at http://www.ifrs.com/Backgrounder_Get_Ready.html. There is also a wealth of information on the IFRS website at http://ifrs.org.

Students from countries other than the US should check the website of the professional accounting organization in your country for an update on the current status. For example, if you go to the website of the Institute of Chartered Accountants of India at http://icai.org and search on IFRS you will find a number of links to documents covering the planned migration to IFRS in India.

2 Accounting and its use in business decisions

2.1 Learning objectives

- Identify and describe the three basic forms of business organizations.
- Distinguish among the three types of activities performed by business organizations.
- Describe the content and purposes of the income statement, statement of retained earnings, balance sheet, and statement of cash flows.
- State the basic accounting equation and describe its relationship to the balance sheet.
- Using the underlying assumptions or concepts, analyze business transactions and determine their effects on items in the financial statements.
- Prepare an income statement, a statement of retained earnings, and a balance sheet.
- Analyze and use the financial results—the equity ratio.

2.2 A career as an entrepreneur

When today's college students are polled about their long-term career choice, a surprisingly large number respond that they wish to someday own and manage their own business. In fact, the aspiration to start a business, to be an entrepreneur, is nearly universal. It is widely acknowledged that a degree in accounting offers many advantages to a would-be entrepreneur. In fact, if you ask owners of small businesses which skill they wish they had more expertise in, they will very frequently reply "accounting". No matter what the business may be, the owner and/or manager must be able to understand the accounting and financial consequences of business decisions.

Most successful entrepreneurs have learned that it takes a lot more than a great marketing idea or product innovation to make a successful business. There are many steps involved before an idea becomes a successful and rewarding business. Entrepreneurs must be able to raise capital, either from banks or investors. Once a business has been launched, the entrepreneur must be a manager—a manager of people, inventory, facilities, customer relationships, and relationships with the very banks and investors that provided the capital. Business owners quickly learn that in order to survive they need to be well-rounded, savvy individuals who can successfully manage these diverse relationships. An accounting education is ideal for providing this versatile background.

In addition to providing a good foundation for entrepreneurship in any business, an accounting degree offers other ways of building your own business. For example, a large percentage of public accountants work as sole proprietors—building and managing their own professional practice. This can

be a very rewarding career, working closely with individuals and small businesses. One advantage of this career is that you can establish your practice in virtually any location ranging from large cities to rural settings. Finally, many accountants who have gained specialized expertise and experience in a particular field start their own practice as consultants. Expertise such as this, which may be in a field outside of traditional accounting practice, can generate billing rates well in the excess of USD 100 an hour.

The introduction to this text provided a background for your study of accounting. Now you are ready to learn about the forms of business organizations and the types of business activities they perform. This chapter presents the financial statements used by businesses. These financial statements show the results of decisions made by management. Investors, creditors, and managers use these statements in evaluating management's past decisions and as a basis for making future decisions.

In this chapter, you also study the accounting process (or accounting cycle) that accountants use to prepare those financial statements. This accounting process uses financial data such as the records of sales made to customers and purchases made from suppliers. In a systematic manner, accountants analyze, record, classify, summarize, and finally report these data in the financial statements of businesses. As you study this chapter, you will begin to understand the unique, systematic nature of accounting—the language of business.

2.3 Forms of business organizations

Accountants frequently refer to a business organization as an **accounting entity** or a **business entity**. A business entity is any business organization, such as a hardware store or grocery store, that exists as an economic unit. For accounting purposes, each business organization or **entity** has an existence separate from its owner(s), creditors, employees, customers, and other businesses.[1] This separate existence of the business organization is known as the **business entity concept**. Thus, in the accounting records of the business entity, the activities of each business should be kept separate from the activities of other businesses and from the personal financial activities of the owner(s).

Assume, for example, that you own two businesses, a physical fitness center and a horse stable. According to the business entity concept, you would consider each business as an independent business unit. Thus, you would normally keep separate accounting records for each business. Now

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1 When first studying any discipline, students encounter new terms. Usually these terms are set in bold. The boldface color terms are also listed and defined at the end of each chapter (see Key terms).

assume your physical fitness center is unprofitable because you are not charging enough for the use of your exercise equipment. You can determine this fact because you are treating your physical fitness center and horse stable as two separate business entities. You must also keep your personal financial activities separate from your two businesses. Therefore, you cannot include the car you drive only for personal use as a business activity of your physical fitness center or your horse stable. However, the use of your truck to pick up feed for your horse stable is a business activity of your horse stable.

As you will see shortly, the business entity concept applies to the three forms of businesses—single proprietorships, partnerships, and corporations. Thus, for accounting purposes, all three business forms are separate from other business entities and from their owner(s). Since most large businesses are corporations, we use the corporate approach in this text and include only a brief discussion of single proprietorships and partnerships.

A **single proprietorship** is an unincorporated business owned by an individual and often managed by that same person. Single proprietors include physicians, lawyers, electricians, and other people in business for themselves. Many small service businesses and retail establishments are also single proprietorships. No legal formalities are necessary to organize such businesses, and usually business operations can begin with only a limited investment.

In a single proprietorship, the owner is solely responsible for all debts of the business. For accounting purposes, however, the business is a separate entity from the owner. Thus, single proprietors must keep the financial activities of the business, such as the receipt of fees from selling services to the public, separate from their personal financial activities. For example, owners of single proprietorships should not enter the cost of personal houses or car payments in the financial records of their businesses.

A **partnership** is an unincorporated business owned by two or more persons associated as partners. Often the same persons who own the business also manage the business. Many small retail establishments and professional practices, such as dentists, physicians, attorneys, and many CPA firms, are partnerships.

A partnership begins with a verbal or written agreement. A written agreement is preferable because it provides a permanent record of the terms of the partnership. These terms include the initial investment of each partner, the duties of each partner, the means of dividing profits or losses between the partners each year, and the settlement after the death or withdrawal of a partner. Each partner may be held liable for all the debts of the partnership and for the actions of each partner within the scope of the business. However, as with the single proprietorship, for accounting purposes, the partnership is a separate business entity.

A **corporation** is a business incorporated under the laws of a state and owned by a few stockholders or thousands of stockholders. Almost all large businesses and many small businesses are incorporated.

The corporation is unique in that it is a separate legal business entity. The owners of the corporation are **stockholders**, or **shareholders**. They buy shares of stock, which are units of ownership, in the corporation. Should the corporation fail, the owners would only lose the amount they paid for their stock. The corporate form of business protects the personal assets of the owners from the creditors of the corporation.[2]

Stockholders do not directly manage the corporation. They elect a board of directors to represent their interests. The board of directors selects the officers of the corporation, such as the president and vice presidents, who manage the corporation for the stockholders.

Accounting is necessary for all three forms of business organizations, and each company must follow generally accepted accounting principles (GAAP). Since corporations have such an important impact on our economy, we use them in this text to illustrate basic accounting principles and concepts.

An accounting perspective: Business insight

Although corporations constitute about 17 per cent of all business organizations, they account for almost 90 per cent of all sales volume. Single proprietorships constitute about 75 per cent of all business organizations but account for less than 10 per cent of sales volume.

2.4 Types of activities performed by business organizations

The forms of business entities discussed in the previous section are classified according to the type of ownership of the business entity. Business entities can also be grouped by the type of business activities they perform—service companies, merchandising companies, and manufacturing companies. Any of these activities can be performed by companies using any of the three forms of business organizations.

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2 When individuals seek a bank loan to finance the formation of a small corporation, the bank often requires those individuals to sign documents making them personally responsible for repaying the loan if the corporation cannot pay. In this instance, the individuals can lose their original investments plus the amount of the loan they are obligated to repay.

- **Service companies** perform services for a fee. This group includes accounting firms, law firms, and dry cleaning establishments. The early chapters of this text describe accounting for service companies.
- **Merchandising companies** purchase goods that are ready for sale and then sell them to customers. Merchandising companies include auto dealerships, clothing stores, and supermarkets. We begin the description of accounting for merchandising companies in Chapter 6.
- **Manufacturing companies** buy materials, convert them into products, and then sell the products to other companies or to the final consumers. Manufacturing companies include steel mills, auto manufacturers, and clothing manufacturers.

All of these companies produce financial statements as the final end product of their accounting process. These financial statements provide relevant financial information both to those inside the company—management—and to those outside the company—creditors, stockholders, and other interested parties. The next section introduces four common financial statements—the income statement, the statement of retained earnings, the balance sheet, and the statement of cash flows.

2.5 Financial statements of business organizations

Business entities may have many objectives and goals. For example, one of your objectives in owning a physical fitness center may be to improve *your* physical fitness. However, the two primary objectives of every business are profitability and solvency. **Profitability** is the ability to generate income. **Solvency** is the ability to pay debts as they become due. Unless a business can produce satisfactory income and pay its debts as they become due, the business cannot survive to realize its other objectives.

There are four basic financial statements. Together they present the profitability and strength of a company. The financial statement that reflects a company's profitability is the **income statement**. The **statement of retained earnings** shows the change in retained earnings between the beginning and end of a period (e.g. a month or a year). The **balance sheet** reflects a company's solvency and financial position. The **statement of cash flows** shows the cash inflows and outflows for a company over a period of time. The headings and elements of each statement are similar from company to company. You can see this similarity in the financial statements of actual companies in the appendix of this textbook.

The **income statement**, sometimes called an earnings statement, reports the profitability of a business organization for a *stated period of time*. In accounting, we measure profitability for a period,

such as a month or year, by comparing the revenues earned with the expenses incurred to produce these revenues. **Revenues** are the inflows of assets (such as cash) resulting from the sale of products or the rendering of services to customers. We measure revenues by the prices agreed on in the exchanges in which a business delivers goods or renders services. **Expenses** are the costs incurred to produce revenues. Expenses are measured by the assets surrendered or consumed in serving customers. If the revenues of a period exceed the expenses of the same period, **net income** results. Thus,

Net income = Revenues – Expenses

Net income is often called the *earnings* of the company. When expenses exceed revenues, the business has a **net loss**, and it has operated unprofitably.

In Exhibit 2, Part A shows the income statement of Metro Courier, Inc., for July 2010. This corporation performs courier delivery services of documents and packages in San Diego in the state of California, USA.

Metro's income statement for the month ended 2010 July 31, shows that the revenues (or delivery fees) generated by serving customers for July totaled USD 5,700. Expenses for the month amounted to USD 3,600. As a result of these business activities, Metro's net income for July was USD 2,100. To determine its net income, the company subtracts its expenses of USD 3,600 from its revenues of USD 5,700. Even though corporations are taxable entities, we ignore corporate income taxes at this point.

One purpose of the *statement of retained earnings* is to connect the income statement and the balance sheet. The **statement of retained earnings** explains the changes in retained earnings between two balance sheet dates. These changes usually consist of the addition of net income (or deduction of net loss) and the deduction of dividends.

Dividends are the means by which a corporation rewards its stockholders (owners) for providing it with investment funds. A **dividend** is a payment (usually of cash) to the owners of the business; it is a distribution of income to owners rather than an expense of doing business. Corporations are not required to pay dividends and, because dividends are not an expense, they do not appear on the income statement.

The effect of a dividend is to reduce cash and retained earnings by the amount paid out. Then, the company no longer retains a portion of the income earned but passes it on to the stockholders. Receiving dividends is, of course, one of the primary reasons people invest in corporations.

The statement of retained earnings for Metro Courier, Inc., for July 2010 is relatively simple (see Part B of Exhibit 2). Organized on June 1, Metro did not earn any revenues or incur any expenses during June. So Metro's beginning retained earnings balance on July 1 is zero. Metro then adds its USD

2,100 net income for July. Since Metro paid no dividends in July, the USD 2,100 would be the ending balance of retained earnings. See below.

A. Income Statement METRO COURIIER INC Income Statement For the Month Ended 2010 July 31		
Revenues:		
Service revenue		$ 5,700
Expenses:		
Salaries expense	$ 2,600	
Rent expense	400	
Gas and oil expense	600	
Total expenses		3,600
Net income		$ 2,100 (A)

B. Statement of Retained Earnings METRO COURIER , INC. Statement of Retained Earnings For the Month Ended 2010 July 31	
Retained earnings, July 1	-0-
Add: Net income for July	(A)2,100
Retained earnings, July 31	$ 2,100 (B)

C. Balance Sheet METRO COURIER, INC. Balance Sheet 2010 July 31			
Assets		**Liabilities and Stockholder's Equity**	
Cash	$ 15,500	Liabilities:	
Account receivables	700	Accounts payable	$ 600
Trucks	20,000	Notes payable	6,000
Office equipment	2,500	Total liabilities	$ 6,600
		Stockholders equity:	
		Capital stock	$ 30,000
		Retained earnings	(B)2,100
		Total stockholders' equity	$ 32,100
Total assets	$ 38,700	Total liabilities and stockholders' equity	$ 38,700

Exhibit 2:

Next, Metro carries this USD 2,100 ending balance in retained earnings to the balance sheet (Part C). If there had been a net loss, it would have deducted the loss from the beginning balance on the statement of retained earnings. For instance, if during the next month (August) there is a net loss of

USD 500, the loss would be deducted from the beginning balance in retained earnings of USD 2,100. The retained earnings balance at the end of August would be USD 1,600.

Dividends could also have affected the Retained Earnings balance. To give a more realistic illustration, assume that (1) Metro Courier, Inc.'s net income for August was actually USD 1,500 (revenues of USD 5,600 less expenses of USD 4,100) and (2) the company declared and paid dividends of USD 1,000. Then, Metro's statement of retained earnings for August would be:

METRO COURIER, INC. **Statement of Retained Earnings** **For the Month Ended 2010 August 31**	
Retained earnings, August 1..........................	$2,100
Add: Net income for August....................	1,500
Total...	$3,600
Less: Dividends.................................	1,000
Retained earnings, August 31........................	$2,600

The **balance sheet**, sometimes called the *statement of financial position,* lists the company's assets, liabilities, and stockholders' equity (including dollar amounts) as of a specific moment in time. That specific moment is the close of business on the date of the balance sheet. Notice how the heading of the balance sheet differs from the headings on the income statement and statement of retained earnings. A balance sheet is like a photograph; it captures the financial position of a company at a particular *point* in time. The other two statements are for a *period* of time. As you study about the assets, liabilities, and stockholders' equity contained in a balance sheet, you will understand why this financial statement provides information about the solvency of the business.

Assets are things of value owned by the business. They are also called the *resources* of the business. Examples include cash, machines, and buildings. Assets have value because a business can use or exchange them to produce the services or products of the business. In Part C of Exhibit 2 the assets of Metro Courier, Inc., amount to USD 38,700. Metro's assets consist of cash, **accounts receivable** (amounts due from customers for services previously rendered), trucks, and office equipment.

Liabilities are the debts owed by a business. Typically, a business must pay its debts by certain dates. A business incurs many of its liabilities by purchasing items on credit. Metro's liabilities consist of **accounts payable** (amounts owed to suppliers for previous purchases) and **notes payable** (written promises to pay a specific sum of money) totaling USD 6,600.[3]

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3 Most notes bear interest, but in this chapter we assume that all notes bear no interest. Interest is an amount paid by the borrower to the lender (in addition to the amount of the loan) for use of the money over time.

Metro Courier, Inc., is a corporation. The owners' interest in a corporation is referred to as **stockholders' equity**. Metro's stockholders' equity consists of (1) USD 30,000 paid for shares of capital stock and (2) retained earnings of USD 2,100. **Capital stock** shows the amount of the owners' investment in the corporation. **Retained earnings** generally consists of the accumulated net income of the corporation minus dividends distributed to stockholders. We discuss these items later in the text. At this point, simply note that the balance sheet heading includes the name of the organization and the title and date of the statement. Notice also that the dollar amount of the total assets is equal to the claims on (or interest in) those assets. The balance sheet shows these claims under the heading "Liabilities and Stockholders' Equity".

Management is interested in the cash inflows to the company and the cash outflows from the company because these determine the company's cash it has available to pay its bills when due. The **statement of cash flows** shows the cash inflows and cash outflows from operating, investing, and financing activities. *Operating activities* generally include the cash effects of transactions and other events that enter into the determination of net income. *Investing activities* generally include business transactions involving the acquisition or disposal of long-term assets such as land, buildings, and equipment. **Financing activities** generally include the cash effects of transactions and other events involving creditors and owners (stockholders).

Chapter 16 describes the statement of cash flows in detail. Our purpose here is to merely introduce this important financial statement. Normally, a firm prepares a statement of cash flows for the same time period as the income statement. The following statement, however, shows the cash inflows and outflows for Metro Courier, Inc., since it was formed on 2010 June 1. Thus, this cash flow statement is for two months.

METRO COURIER, INC. **Statement of Cash Flows** **For the Two-Month Period Ended 2010 July 31**		
Cash flows from operating activities:		
Net income..	$2.100	
Adjustments to reconcile net income to net cash provided by operating activities:		
Increase in accounts receivable....................................	(700)	
Increase in accounts payable.......................................	600	
Net cash provided by operating activities................	$2,000	
Cash flows from investing activities:		
Purchase of trucks..	$(20,000)	
Purchase of office equipment..	(2,500)	
Net cash used by investing activities..............................		(22,500)
Cash flows from financing activities:		
Proceeds from notes payable..	$6,000	
Proceeds from sale of capital stock......................................	30,000	

Net cash provided by financing activities........................		36,000
Net increase in cash..		$15,500

At this point in the course, you need to understand what a statement of cash flows is rather than how to prepare it. We do not ask you to prepare such a statement until you have studied Chapter 16.

The income statement, the statement of retained earnings, the balance sheet, and the statement of cash flows of Metro Courier, Inc., show the results of management's past decisions. They are the end products of the accounting process, which we explain in the next section. These financial statements give a picture of the solvency and profitability of the company. The accounting process details how this picture was made. Management and other interested parties use these statements to make future decisions. Management is the first to know the financial results; then, it publishes the financial statements to inform other users. The most recent financial statements for most companies can be found on their websites under "Investor Relations" or some similar heading.

2.6 The financial accounting process

In this section, we explain the accounting equation—the framework for the entire accounting process. Then, we show you how to recognize a business transaction and describe underlying assumptions that accountants use to record business transactions. Next you learn how to analyze and record business transactions.

In the balance sheet presented in Exhibit 2 (Part C), the total assets of Metro Courier, Inc., were equal to its total liabilities and stockholders' equity. This equality shows that the assets of a business are equal to its equities; that is,

Assets = Equities

Assets were defined earlier as the things of value owned by the business, or the economic resources of the business. **Equities** are all claims to, or interests in, assets. For example, assume that you purchased a new company automobile for USD 15,000 by investing USD 10,000 in your own corporation and borrowing USD 5,000 in the name of the corporation from a bank. Your equity in the automobile is USD 10,000, and the bank's equity is USD 5,000. You can further describe the USD 5,000 as a liability because you owe the bank USD 5,000. If you are a corporation, you can describe your USD 10,000 equity as stockholders' equity or interest in the asset. Since the owners in a corporation are stockholders, the basic **accounting equation** becomes:

Assets A = Liabilities L + Stockholders' Equity SE

From Metro's balance sheet in Exhibit 2 (Part C), we can enter in the amount of its assets, liabilities, and stockholders' equity:

A = L + SE

USD 38,700 = USD 6,600 + USD 32,100

Remember that someone must provide assets or resources—either a creditor or a stockholder. Therefore, this equation must always be in balance.

You can also look at the right side of this equation in another manner. The liabilities and stockholders' equity show the sources of an existing group of assets. Thus, liabilities are not only claims against assets but also sources of assets.

Together, creditors and owners provide all the assets in a corporation. The higher the proportion of assets provided by owners, the more solvent the company. However, companies can sometimes improve their profitability by borrowing from creditors and using the funds effectively. As a business engages in economic activity, the dollar amounts and composition of its assets, liabilities, and stockholders' equity change. *However, the equality of the basic accounting equation always holds.*

An accounting **transaction** is a business activity or event that causes a measurable change in the accounting equation, Assets = Liabilities + Stockholders' equity. An exchange of cash for merchandise is a transaction. The exchange takes place at an agreed price that provides an objective measure of economic activity. For example, the objective measure of the exchange may be USD 5,000. These two factors—evidence and measurement—make possible the recording of a transaction. Merely placing an order for goods is not a recordable transaction because no exchange has taken place.

A source document usually supports the evidence of the transaction. A **source document** is any written or printed evidence of a business transaction that describes the essential facts of that transaction. Examples of source documents are receipts for cash paid or received, checks written or received, bills sent to customers for services performed or bills received from suppliers for items purchased, cash register tapes, sales tickets, and notes given or received. We handle source documents constantly in our everyday life. Each source document initiates the process of recording a transaction.

2.7 Underlying assumptions or concepts

In recording business transactions, accountants rely on certain underlying assumptions or concepts. Both preparers and users of financial statements must understand these assumptions:

- **Business entity concept (or accounting entity concept).** Data gathered in an accounting system relates to a specific business unit or **entity**. The business entity concept assumes that each business has an existence separate from its owners, creditors, employees, customers, other interested parties, and other businesses.

- **Money measurement concept.** Economic activity is initially recorded and reported in a common monetary unit of measure—the dollar in the United States. This form of measurement is known as *money measurement*.
- **Exchange-price (or cost) concept (principle).** Most of the amounts in an accounting system are the objective money prices determined in the exchange process. As a result, we record most assets at their acquisition cost. **Cost** is the sacrifice made or the resources given up, measured in money terms, to acquire some desired thing, such as a new truck (asset).
- **Going-concern (continuity) concept.** Unless strong evidence exists to the contrary, accountants assume that the business entity will continue operations into the indefinite future. Accountants call this assumption the *going-concern or continuity* concept. Assuming that the entity will continue indefinitely allows accountants to value long-term assets, such as land, at cost on the balance sheet since they are to be used rather than sold. Market values of these assets would be relevant only if they were for sale. For instance, accountants would still record land purchased in 1988 at its cost of USD 100,000 on the 2010 December 31, balance sheet even though its market value has risen to USD 300,000.
- **Periodicity (time periods) concept.** According to the *periodicity (time periods)* concept or assumption, an entity's life can be meaningfully subdivided into time periods (such as months or years) to report the results of its economic activities.

Now that you understand business transactions and the five basic accounting assumptions, you are ready to follow some business transactions step by step. To begin, we divide Metro's transactions into two groups: (1) transactions affecting only the balance sheet in June, and (2) transactions affecting the income statement and/or the balance sheet in July. Note that we could also classify these transactions as operating, investing, or financing activities, as shown in the statement of cash flows.

2.8 Transactions affecting only the balance sheet

Since each transaction affecting a business entity must be recorded in the accounting records, analyzing a transaction before actually recording it is an important part of financial accounting. An error in transaction analysis results in incorrect financial statements.

To illustrate the analysis of transactions and their effects on the basic accounting equation, the activities of Metro Courier, Inc., that led to the statements in Exhibit 2 follow. The first set of transactions (for June), 1a, 2a, and so on, are repeated in the summary of transactions, Exhibit 3 (Part A). The second set of transactions (for July) (1b–6b) are repeated in Exhibit 4 (Part A).

2.8.1 1a. Owners invested cash

When Metro Courier, Inc., was organized as a corporation on 2010 June 1, the company issued shares of capital stock for USD 30,000 cash to Ron Chaney, his wife, and their son. This transaction increased assets (cash) of Metro by USD 30,000 and increased equities (the capital stock element of stockholders' equity) by USD 30,000. Consequently, the transaction yields the following basic accounting equation:

	Assets					=Liabilities +		Stockholders' Equity
Trans-action	Explan-ation	Cash	Accounts Receiv-able	Trucks	Office Equip-ment	Accounts Payable	Notes Payable +	Capital Stock
1a	Beginning balances Stockholders invested cash	$ -0- 30,000	$ -0-	$ -0-	$ -0-	= $ -0-	$ -0-	$ -0- 30,000
	Balance after transaction	$ 30,000						$ 30,000
		Increased by $30,000						Increased by $30,000

2.8.2 2a. Borrowed money

The company borrowed USD 6,000 from Chaney's father. Chaney signed the note for the company. The note bore no interest and the company promised to repay (recorded as a *note payable*) the amount borrowed within one year. After including the effects of this transaction, the basic accounting equation is:

		Assets				= Liabilities +		Stockholder's Equity
Trans-action	Explan-ation	Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable	Capital + Stock
	Balances before transaction	$ 30,000	$ -0-	$ -0-	$ -0-	= $ -0-	$ -0-	$ 30,000
2a	Borrowed money	6,000					6,000	
	Balance after transaction	$ 36,000				=	$ 6,000	+ $ 30,000
		Increased by $6,000					Increased by $6,000	

2.8.3 3a. Purchased trucks and office equipment for cash

Metro paid USD 20,000 cash for two used delivery trucks and USD 1,500 for office equipment. Trucks and office equipment are assets because the company uses them to earn revenues in the future. Note that this transaction does not change the total amount of assets in the basic equation but only changes the composition of the assets. This transaction decreased cash and increased trucks and office

equipment (assets) by the total amount of the cash decrease. Metro received two assets and gave up one asset of equal value. Total assets are still USD 36,000. The accounting equation now is:

Assets				= Liabilities +		Stockholders' Equity
Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable	Capital + Stock
$ 36,000	$ -0-	$ -0-	$ -0- =	$ -0-	$ 6,000	+ $ 30,000
(21,500)		20,000	1,500			
$ 14,500		$ 20,000	$ 1,500 =		$ 6,000	+ $ 30,000
Decreased by $21,500		Increased by $20,000	Increased by $1,500			

2.8.4 4a. Purchased office equipment on account (for credit)

Metro purchased an additional USD 1,000 of office equipment on account, agreeing to pay within 10 days after receiving the bill. (To purchase an item *on account* means to buy it on credit.) This transaction increased assets (office equipment) and liabilities (accounts payable) by USD 1,000. As stated earlier, accounts payable are amounts owed to suppliers for items purchased on credit. Now you can see the USD 1,000 increase in the assets and liabilities as follows:

Assets				= Liabilities	+	Stockholders' Equity
Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable +	Capital Stock
$ 14,500		$ 20,000	$ 1,500 =		$ 6,000	$ 30,000
			1,000	1,000		
$ 14,500		$ 20,000	$ 2,500 =	$ 1,000	$ 6,000 +	$ 30,000
			Increased by $1,000	Increased by $1,000		

2.8.5 5a. Paid an account payable

Eight days after receiving the bill, Metro paid USD 1,000 for the office equipment purchased on account (transaction 4a). This transaction reduced cash by USD 1,000 and reduced accounts payable by USD 1,000. Thus, the assets and liabilities both are reduced by USD 1,000, and the equation again balances as follows:

		Assets				= Liabilities +		Stockholders equity
Trans-action	Explanation	Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable	+ Capital Stock
	Balances before transaction	$ 14,500	$ -0-	$ 20,000	$ 2,500 =	$ 1,000	$ 6,000	+ $30,000
5a	Paid an account payable	(1,000)				(1,000)		
	Balance after transaction	$ 13,500	$ -0-	$ 20,000	$ 2,500	$ -0-	$ 6,000	+$30,000
		Decreased by $1,000				Decreased by $1,000		

A. Summary of Transactions

METRO COURIER, INC.
Summary of Transactions
Month of June 2010

		Assets				=Liabilities +		Stockholders' Equity
Transaction	Explanation	Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable	Capital + Stock
	Beginning balances	$ -0	$ -0-	$ -0-	$ -0-	= $ -0-	$ -0-	$ -0-
1a	Stockholders invested cash	30,000						30,000
		$ 30,000						$ 30,000
2a	Borrowed money	6,000				=	6,000	
		$ 36,000				=	$6000	+$30,000
3a	Purchased trucks and office equipment for cash	(21,500)		20,000	1,500			
		$ 14,500		$20,000	$ 1,500	=	$ 6,000	+ $ 30,000
4a	Purchased office equipment on account				1,000	1,000	$ 6,000	+ $ 30,000
		$ 14,500		$20,000	$ 2,500	= $ 1,000	$ 6,000	+ $ 30,000
5a	Paid an account payable	(1,000)				(1,000)		
	End-of-month balances	$ 13,500(A)	$ -0-	$20,000(B)	$ 2,500(C)	= $ -0-	$6,000(D)	+ $ 30,000(E)

B. Balance Sheet

METRO COURIER, INC.
Balance Sheet
2010 June 30

Assets		Liabilities and Stockholders' Equity		
Cash	(A) $ 13,500	Liabilities:		
Trucks	(B) 20,000	Notes Payable	(D) $6,000	
Office equipment	(C)2,500	Total Liabilities		$ 6,000
		Stockholders' equity:		
		Capital stock		(E) 30,000
Total assets	$ 36,000	Total liabilities and stockholders' equity		$ 36,000

Exhibit 3: Balance Sheet

Exhibit 3, Part A, is a *summary of transactions* prepared in accounting equation form for June. A **summary of transactions** is a teaching tool used to show the effects of transactions on the accounting equation. Note that the stockholders' equity has remained at USD 30,000. This amount

changes as the business begins to earn revenues or incur expenses. You can see how the totals at the bottom of Part A of Exhibit 3 tie into the balance sheet shown in Part B. The date on the balance sheet is 2010 June 30. These totals become the beginning balances for July 2010.

Thus far, all transactions have consisted of exchanges or acquisitions of assets either by borrowing or by owner investment. We used this procedure to help you focus on the accounting equation as it relates to the balance sheet. However, people do not form a business only to hold existing assets. They form businesses so their assets can generate greater amounts of assets. Thus, a business increases its assets by providing goods or services to customers. The results of these activities appear in the income statement. The section that follows shows more of Metro's transactions as it began earning revenues and incurring expenses.

2.9 Transactions affecting the income statement and/or balance sheet

To survive, a business must be profitable. This means that the revenues earned by providing goods and services to customers must exceed the expenses incurred.

In July 2010, Metro Courier, Inc., began selling services and incurring expenses. The explanations of transactions that follow allow you to participate in this process and learn the necessary accounting procedures.

2.9.1 1b. Earned service revenue and received cash

As its first transaction in July, Metro performed delivery services for customers and received USD 4,800 cash. This transaction increased an asset (cash) by USD 4,800. Stockholders' equity (retained earnings) also increased by USD 4,800, and the accounting equation was in balance.

The USD 4,800 is a revenue earned by the business and, as such, increases stockholders' equity (in the form of retained earnings) because stockholders prosper when the business earns profits. Likewise, if the corporation sustains a loss, the loss would reduce retained earnings.

Revenues increase the amount of retained earnings while expenses and dividends decrease them. (In this first chapter, we show all of these items as immediately affecting retained earnings. In later chapters, the revenues, expenses, and dividends are accounted for separately from retained earnings during the accounting period and are transferred to retained earnings only at the end of the accounting period as part of the closing process described in Chapter 4.) The effects of this USD 4,800 transaction on the financial position of Metro are:

Metro would record the increase in stockholders' equity brought about by the revenue transaction as a separate account, retained earnings. This does not increase capital stock because the Capital Stock account increases only when the company issues shares of stock. The expectation is that revenue transactions will exceed expenses and yield net income. If net income is not distributed to stockholders, it is in fact retained. Later chapters show that because of complexities in handling large numbers of transactions, revenues and expenses affect retained earnings only at the end of an accounting period. The preceding procedure is a shortcut used to explain why the accounting equation remains in balance.

		Assets				**=Liabilities +**		**Stockholders' Equity**	
Transaction	**Explanation**	**Cash**	**Accounts Receivable**	**Trucks**	**Office Equipment**	**Accounts Payable**	**Notes Payable**	**Capital + Stock**	**Retained Earnings**
	Beginning balances (Exhibit 3)	$ 13,500	$ -0-	$ 20,000	$ 2,500 =	$ -0-	$ 6,000	$ 30,000	$ -0-
1b	Earned service revenue and received cash	4,800							4,800
	Balances after transaction	$ 18,300		$ 20,000	$ 2,500 =		$ 6,000	+ $ 30,000	$ 4,800
		Increased by $4,800							Increased by $4,800

2.9.2 2b. Service revenue earned on account (for credit)

Metro performed courier delivery services for a customer who agreed to pay USD 900 at a later date. The company granted credit rather than requiring the customer to pay cash immediately. This is called earning revenue *on account*. The transaction consists of exchanging services for the customer's promise to pay later. This transaction is similar to the preceding transaction in that stockholders' equity (retained earnings) increases because the company has earned revenues. However, the transaction differs because the company has not received cash. Instead, the company has received another asset, an *account receivable*. As noted earlier, an account receivable is the amount due from a customer for goods or services already provided. The company has a legal right to collect from the customer in the future. Accounting recognizes such claims as assets. The accounting equation, including this USD 900 item, is as follows:

		Assets				**Liabilities**		**Stockholders' + Equity**	
Transaction	**Explanation**	**Cash**	**Accounts Receivable**	**Trucks**	**Office Equipment**	**Accounts Payable**	**Notes Payable**	**Capital + Stock**	**Retained Earnings**
	Balances before transaction	$ 18,300		$ 20,000	$ 2,500 =		$ 6,000	$ 30,000	$ 4,800
2b	Earned service revenue on account		$900						900
	Balances after transaction	$ 18,300	$900	$ 20,000	$ 2,500 =		$ 6,000	+ $ 30,000	$5,700
			Increased by $900						Increased by $900

2.9.3 3b. Collected cash on accounts receivable

Metro collected USD 200 on account from the customer in transaction 2b. The customer will pay the remaining USD 700 later. This transaction affects only the balance sheet and consists of giving up a claim on a customer in exchange for cash. The transaction increases cash by USD 200 and decreases accounts receivable by USD 200. Note that this transaction consists solely of a change in the composition of the assets. When the company performed the services, it recorded the revenue. Therefore, the company does not record the revenue again when collecting the cash.

		Assets				=Liabilities +		Stockholders' +Equity
Transaction	**Explanation**	**Cash**	**Accounts Receivable**	**Trucks**	**Office Equip-ment**	**Accounts Payable**	**Notes Payable**	**+ Capital Stock**
	Balances before transaction	$ 18,300	$ 900 $	20,000	$ 2,500 =		$ 6,000	$ 30,000
3b	Collected cash on account	$ 200	(200)					
	Balances after transaction	$ 18,500	$700	20,000	$ 2,500 =		$ 6,000	+ $ 30,000
		Increased by $200	Decreased by $200					

2.9.4 4b. Paid salaries

Metro paid employees USD 2,600 in salaries. This transaction is an exchange of cash for employee services. Typically, companies pay employees for their services after they perform their work. Salaries (or wages) are costs companies incur to produce revenues, and companies consider them an expense. Thus, the accountant treats the transaction as a decrease in an asset (cash) and a decrease in stockholders' equity (retained earnings) because the company has incurred an expense. Expense transactions reduce net income. Since net income becomes a part of the retained earnings balance, expense transactions also reduce the retained earnings.

Assets				= Liabilities +		Stockholders' Equity	
Cash	**Accounts Receivable**	**Trucks**	**Office Equipment**	**Accounts Payable**	**Notes Payable +**	**Capital Stock**	**Retained Earnings**
$ 18,500 (2,600)	$ 700	$ 20,000	$ 2,500 =		$6,000	$ 30,000	$ 5,700 (2,600)
$ 15,900	$ 700	$ 20,000	$ 2,500 =		$6,000 +	$ 30,000	$ 3,100
Decreased by $2,600							Decreased by $2,600

2.9.5 5b. Paid rent

In July, Metro paid USD 400 cash for office space rental. This transaction causes a decrease in cash of USD 400 and a decrease in retained earnings of USD 400 because of the incurrence of rent expense.

Transaction 5b has the following effects on the amounts in the accounting equation:

Assets				= Liabilities +		Stockholders' Equity	
Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable	+ Capital Stock	Retained Earnings
$ 15,900 (400)	$ 700	$ 20,000	$ 2,500 =		$ 6,000	$ 30,000	$ 3,100 (400)
$ 15,500	$ 700	$ 20,000	$ 2,500 =		$ 6,000	+ $ 30,000	$ 2,700
Decreased by $400							Decreased by $400

2.9.6 6b. Received bill for gas and oil used

At the end of the month, Metro received a USD 600 bill for gas and oil consumed during the month. This transaction involves an increase in accounts payable (a liability) because Metro has not yet paid the bill and a decrease in retained earnings because Metro has incurred an expense. Metro's accounting equation now reads:

Assets				=Liabilities +		Stockholders' +Equity	
Cash	Accounts Receivable	Trucks	Office Equipment	Accounts Payable	Notes Payable	Capital + Stock	Retained Earnings
$ 15,500	$ 700	$ 20,000	$ 2,500 =		$ 6,000	$ 30,000	$ 2,700
				600			(600)
$ 15,500	$ 700	$ 20,000	$ 2,500 =	$ 600	$ 6,000	+ $ 30,000	$ 2,100
				Increased by $600			Decreased by $600

2.10 Summary of balance sheet and income statement transactions

Part A of Exhibit 4 summarizes the effects of all the preceding transactions on the assets, liabilities, and stockholders' equity of Metro Courier, Inc., in July. The beginning balances are the ending balances in Part A of Exhibit 3. The summary shows subtotals after each transaction; these subtotals are optional and may be omitted. Note how the accounting equation remains in balance after each transaction and at the end of the month.

The ending balances in each of the columns in Part A of Exhibit 4 are the dollar amounts in Part B and those reported earlier in the balance sheet in Part C of Exhibit 2. The itemized data in the Retained Earnings column are the revenue and expense items in Part C of Exhibit 4 and those reported earlier in the income statement in Part A of Exhibit 2. The beginning balance in the Retained Earnings column (USD 0) plus net income for the month (USD 2,100) is equal to the ending balance in retained earnings (USD 2,100) shown earlier in Part B of Exhibit 2. Remember that the financial statements are not an end in themselves, but are prepared to assist users of those statements to make informed decisions. Throughout the text we show how people use accounting information in decision making.

2.11 Dividends paid to owners (stockholders)

Stockholders' equity is (1) increased by capital contributed by stockholders and by revenues earned through operations and (2) decreased by expenses incurred in producing revenues. The payment of cash or other assets to stockholders in the form of dividends also reduces stockholders' equity. Thus, if the owners receive a cash dividend, the effect would be to reduce the retained earnings part of stockholders' equity; the amount of dividends is not an expense but a distribution of income.

An ethical perspective: State university

James Stevens was taking an accounting course at State University. Also, he was helping companies find accounting systems that would fit their information needs. He advised one of his clients to acquire a software computer package that could record the business transactions and prepare the financial statements. The licensing agreement with the software company specified that the basic charge for one site was USD 4,000 and that USD 1,000 must be paid for each additional site where the software was used.

James was pleased that his recommendation to acquire the software was followed. However, he was upset that management wanted him to install the software at eight other sites in the company and did not intend to pay the extra USD 8,000 due the software company. A member of management stated, "The software company will never know the difference and, besides, everyone else seems to be pirating software. If they do find out, we will pay the extra fee at that time. Our expenses are high enough without paying these unnecessary costs." James believed he might lose this client if he did not do as management instructed.

An accounting perspective: Uses of technology

Accountants and others can access the home pages of companies to find their annual reports and other information, home pages of CPA firms to find employment opportunities and services offered, and home pages of government agencies, universities, and any other agency that has established a home page. By making on-screen choices you can discover all kinds of interesting information about almost anything. You can access libraries, even in foreign countries, newspapers, such as The Wall Street Journal, and find addresses and phone numbers of anyone in the nation. We have included some Internet Projects at the end of the chapters to give you some experience at "surfing the net" for accounting applications.

A. Summary of Transactions

METRO COURIER, INC.
Summary of Transactions
Month of July 2010

		Assets				**-Liabilities +**		**Stockholders' Equity**	
Trans-action	**Explanation**	**Cash**	**Accounts Receiv-able**	**Trucks**	**Office Equipment**	**Accounts Payable**	**Notes Payable +**	**Capital Stock**	**Retained Earnings**
	Beginning balances (Illustration 1.2)	$ 13,500	$ -0-	$ 20,000	$ 2,500 =	$ -0-	$ 6,000 +	$ 30,000	$ -0-
1b	Earned service revenue and received cash	4,800							4,800(A)
		$ 18,300		$ 20,000	$ 2,500 =		$ 6,000 +	$ 30,000	$ 4,800
2b	Earned service revenue on account		900						900(B)
		$ 18,300	$ 900	$ 20,000	$ 2,500 =		$ 6,000 +	$ 30,000	$ 5,700
3b	Collected cash on account	200	(200)						
		$ 18,500	$ 700	$ 20,000	$ 2,500 =		$ 6,000 +	$ 30,000	$ 5,700
4b	Paid salaries	(2,600)							(2,600)(C)
		$ 15,900	$ 700	$ 20,000	$ 2,500 =		$ 6,000 +	$ 30,000	$ 3,100
5b	Paid rent	(400)							(400)(D)
		$ 15,500	$ 700	$ 20,000	$ 2,500 =		$ 6,000 +	$ 30,000	$ 2,700
6b	Received bill for gas and oil used					600			(600)(E)
	End-of-month balances	$15,500(F)	$ 700(G)	$ 20,000(H)	$ 2,500 =(I)	$ 600(J)	$ 6,000 + (K)	$ 30,000(L)	$ 2,100(M)
		$38,700				$6,600		$32,100	

B. Balance Sheet

METRO COURIER, INC.
Balance Sheet
2010 July 31

Assets		**Liabilities and Stockholders'**	
Cash	(F)$15,500	Liabilities:	
Accounts receivable	(G)700	Accounts payable	(J)$600
Trucks	(H)20,000	Notes payable	(K)6,000
Office equipment	(I)2,500	Total liabilities Stockholders' equity	$6,600
		Capital stock	(L)$30,000
		Retained earnings	(M)2,100
		Total stockholders' equity	$32,100
Total assets	$38,700	Total liabilities and stockholders' equity	$38,700

C. Income Statement

METRO COURIER, INC.
Income Statement
For the Month Ended 2010 July 31

Revenues:		
Service revenue		(A+B)$ 5,700
Expenses:		

Salaries expense	(C)$ 2,600	
Rent expense	(D)400	
Gas & oil expense	(F)600	
Total expenses		3,600
Net income		$ 2,100

Exhibit 4:

2.12 Analyzing and using the financial results—the equity ratio

The two basic sources of equity in a company are stockholders and creditors; their combined interests are called *total equities*. To find the **equity ratio,** divide stockholders' equity by total equities or total assets, since total equities equals total assets. In formula format:

$$\text{Equity ratio} = \frac{\text{Stockholders' equity}}{\text{Total equities}}$$

The higher the proportion of equities (or assets) supplied by the owners, the more solvent the company. However, a high portion of debt may indicate higher profitability because quite often the interest rate on debt is lower than the rate of earnings realized from using the proceeds of the debt.

An example illustrates this concept: Suppose that a company with USD 100,000 in assets could have raised the funds to acquire those assets in these two ways:

Case 1	
Assets...............$100,000	Liabilities........................$20,000
	Stockholders' equity...........$80,000
Case 2	
Assets...............$100,000	Liabilities........................$80,000
	Stockholders' equity...........$20,000

When a company suffers operating losses, its assets decrease. In Case 1, the assets would have to shrink by 80 per cent before the liabilities would equal the assets. In Case 2, the assets would have to shrink only 20 per cent before the liabilities would equal the assets. When the liabilities exceed the assets, the company is said to be insolvent. Therefore, creditors are safer in Case 1 and will more readily lend money to the company.

However, if funds borrowed at 10 per cent are used to produce earnings at a 20 per cent rate, Case 2 is preferable in terms of profitability. Therefore, owners are better off in Case 2 if the borrowed funds can earn more than they cost.

Next, we examine the recent equity ratios of some actual companies:

Name of Company	Stockholders' Equity ($ millions)	Total Equities ($ millions)	Equity Ratio
Johnson & Johnson	$ 23,734	$ 37,053	64.1%
3M Corporation	6,166	15,205	40.6
General Electric Company	53,597	460,097	11.6

As you can see from the preceding data, the equity ratios of actual companies vary widely. Companies such as Johnson & Johnson and 3M Corporation employ a higher proportion of stockholders' equity (a lower proportion of debt) than GE in an effort to have stronger balance sheets (more solvency). GE employs a greater proportion of debt, possibly in an attempt to increase profitability. Every company must strike a balance between solvency and profitability to ensure long-run survival. The correct balance between proportions of stockholder and creditor equities depends on the industry, general business conditions, and management philosophy.

Chapter 1 has introduced two important components of the accounting process—the accounting equation and the business transaction. In Chapter 2, you learn about debits and credits and how accountants use them in recording transactions. Understanding how data are accumulated, classified, and reported in financial statements helps you understand how to use financial statement data in making decisions.

An accounting perspective: Uses of technology

When you apply for your first job after graduation, prospective employers will expect you to know how to use a PC to perform many tasks. Therefore, before you graduate you should be able to use word processing, spreadsheet, and database software. You should be able to use the Internet to find useful information. In many universities, you can learn these skills in courses taken for credit. If your school does not offer credit courses, take noncredit courses or attend a training center.

2.13 Understanding the learning objectives

- A single proprietorship is an unincorporated business owned by an individual and often managed by that individual.
- A partnership is an unincorporated business owned by two or more persons associated as partners and is often managed by them.
- A corporation is a business incorporated under the laws of a state and owned by a few stockholders or by thousands of stockholders.
- Service companies perform services for a fee.
- Merchandising companies purchase goods that are ready for sale and then sell them to customers.

- Manufacturing companies buy materials, convert them into products, and then sell the products to other companies or to final customers.
- The income statement reports the revenues and expenses of a company and shows the profitability of that business organization for a stated period of time.
- The statement of retained earnings shows the change in retained earnings between the beginning of the period (e.g. a month) and its end.
- The balance sheet lists the assets, liabilities, and stockholders' equity (including dollar amounts) of a business organization at a specific moment in time.
- The statement of cash flows shows the cash inflows and cash outflows for a company for a stated period of time.
- The accounting equation is Assets = Liabilities + Stockholders' equity.
- The left side of the equation represents the left side of the balance sheet and shows things of value owned by the business.
- The right side of the equation represents the right side of the balance sheet and shows who provided the funds to acquire the things of value (assets).
- Some transactions affect only balance sheet items: assets (such as cash, accounts receivable, and equipment), liabilities (such as accounts payable and notes payable), and stockholders' equity (capital stock). Other transactions affect both balance sheet items and income statement items (revenues, expenses, and eventually retained earnings).
- Exhibit 3 (Part A) and Exhibit 4 (Part A) show the effects of business transactions on the accounting equation.
- The income statement appears in Exhibit 2 (Part A) and Exhibit 4 (Part C).
- The statement of retained earnings appears in Exhibit 2 (Part B).
- The balance sheet appears in Exhibit 2 (Part C) and Exhibit 4 (Part B).
- The equity ratio is the stockholders' equity divided by total equities (or total assets).
- The equity ratio shows the percentage that assets would have to shrink before a company would become insolvent (liabilities exceed assets).

2.14 Appendix: A comparison of corporate accounting with accounting for a sole proprietorship and a partnership

Some textbook authors use a sole proprietorship and a partnership form of business ownership to illustrate accounting concepts and practices. In a survey of users and nonusers of our text, we learned that the majority preferred the corporate approach because most students will probably work for or

invest in corporations. Also, many small businesses operate as corporations because of the investors' desire for limited liability.

This appendix briefly describes the differences in accounting for these three forms of business ownership. The major difference is in the stockholders' equity or owner's equity section of the balance sheet.

As you learned in this chapter, the stockholders' equity section of the balance sheet for a corporation consists of capital stock and retained earnings. The owner's equity section of the balance sheet for a sole proprietorship consists only of the owner's capital account. The owner's equity section of a partnership is similar to that of a single proprietorship except that it shows a capital account and its balance for each partner.

Corporation	**Sole Proprietorship**	**Partnership**
Stockholders'	Owner's equity:	Partners' capital:
equity:	John Smith,	John Smith,
Capital stock...$100,000	Capital....$150,000	Capital........... $75,000
Retained		Sam Jones,
earnings..... 50,000		Capital........... 75,000
Total.................$150,000	$150,000	$150,000

The stockholders' equity section of a corporate balance sheet can become more complex as you will see later in the text. However, the items in the owner's equity section of the balance sheets of a sole proprietorship and a partnership always remain as just shown. In a sole proprietorship, the owner's capital balance consists of the owner's investments in the business, plus cumulative net income since the beginning of the business, less any amounts withdrawn by the owner. Thus, all of the amounts in the various stockholders' equity accounts for a corporation are in the owner's capital account in a single proprietorship. In a partnership, each partner's capital account balance consists of that partner's investments in the business, plus that partner's cumulative share of net income since that partner became a partner, less any amounts withdrawn by that partner.

The Dividends account in a corporation is similar to an owner's drawing account in a single proprietorship. These accounts both show amounts taken out of the business by the owners. In a partnership, each partner has a drawing account. Accountants treat asset, liability, revenue, and expense accounts similarly in all three forms of organization.

2.15 Demonstration problem

On 2010 June 1, Green Hills Riding Stable, Incorporated, was organized. The following transactions occurred during June:

June 1 Shares of capital stock were issued for USD 10,000 cash.

4 A horse stable and riding equipment were rented (and paid for) for the month at a cost of USD 1,200.

8 Horse feed for the month was purchased on credit, USD 800.

15 Boarding fees of USD 3,000 for June were charged to those owning horses boarded at the stable. (Fee is due on July 10.)

20 Miscellaneous expenses of USD 600 were paid.

29 Land was purchased from a savings and loan association by borrowing USD 40,000 on a note from that association. The loan is due to be repaid in five years. Interest payments are due at the end of each month beginning July 31.

30 Salaries of USD 700 for the month were paid.

30 Riding and lesson fees were billed to customers in the amount of USD 2,800. (Fees are due on July 10.)

Prepare a summary of the preceding transactions. Use columns headed Cash, Accounts Receivable, Land, Accounts Payable, Notes Payable, Capital Stock, and Retained Earnings. Determine balances after each transaction to show that the basic accounting equation is in balance.

Prepare an income statement for June 2010.

Prepare a statement of retained earnings for June 2010.

Prepare a balance sheet as of 2010 June 30.

2.16 Solution to demonstration problem

a.	GREEN HILLS RIDING STABLE, INCORPORATED Summary of Transactions Month of June 2010							
		Assets			**= Liabilities +**		**Stockholders Equity**	
Date	**Explanation**	**Cash**	**Accounts Receivable**	**Land**	**Accounts Payable**	**Notes Payable**	**Capital + Stock**	**Retained Earnings**
June 1	Capital stock issued	$ 10,000		=			$ 10,000	
4	Rent expense	(1,200)						$ (1,200)
		$ 8,800		=			+ $ 10,000	$ (1,200)
8	Feed expense				$ 800			(800)
		$ 8,800		=	$ 800		+ $ 10,000	$ (2,000)
15	Boarding fees		$ 3,000					3,000
		$ 8,800	$ 3,000	=	$ 800		+ $ 10,000	$ 1,000
20	Miscellaneous expenses	(600)						(600)
		$ 8,200	$ 3,000	=	800		+ $ 10,000	$ 400
29	Purchased land by borrowing			$ 40,000		$ 40,000		
		$ 8,200	$ 3,000	$ 40,000 =	$ 800	$ 40,000	+ $ 10,000	$ 400
30	Salaries paid	(700)						(700)
		$ 7,500	$ 3,000	$ 40,000 =	$ 800	$ 40,000	+ $ 10,000	$ (300)
30	Riding and lesson fees billed		2,800					2,800
		$ 7,500	$ 5,800	$ 40,000	$ 800	$ 40,000	+ $ 10,000	$ 2,500

b)

GREEN HILLS RIDING STABLE, INCORPORATE Income Statement For the Month Ended 2010 June 30		
Revenues:		
Horse boarding fees revenue	$ 3,000	
Riding and lesson fee revenue	2,800	
Total revenues		$ 5,800
Expenses:		
Rent expense	$ 1,200	
Feed expense	800	
Salaries expense	700	
Miscellaneous expense	600	
Total expenses		3,300
Net income		$ 2,500

c)

GREEN HILLS RIDING STABLE, INCORPORATED Statement of Retained Earnings For the Month Ended 2010 June 30	
Retained earnings, June 1	$ -0-
Add: Net income for June	2,500
Total	$ 2,500
Less: Dividends	-0-
Retained earnings, June 30	$ 2,500

d)

GREEN HILLS RIDING STABLE, INCORPORATE Balance Sheet 2010 June 30		
Assets		
Cash		$ 7,500
Accounts receivable		5,800
Land		40,000
Total assets		$ 53,300
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable		$ 800
Noted payable		40,000
Total liabilities		$ 40,800
Stockholders' equity:		
Capital stock	$ 10,000	
Retained earnings	2,500	
Total stockholders' equity		$ 12,500
Total liabilities and stockholders' equity		$53,300.00

2.17 Key terms

Accounting equation Assets = Equities; or Assets = Liabilities + Stockholders' equity.

Accounts payable Amounts owed to suppliers for goods or services purchased on credit.

Accounts receivable Amounts due from customers for services already provided.

Assets Things of value owned by the business. Examples include cash, machines, and buildings. To their owners, assets possess service potential or utility that can be measured and expressed in money terms.

Balance sheet Financial statement that lists a company's assets, liabilities, and stockholders' equity (including dollar amounts) as of a specific moment in time. Also called a *statement of financial position.*

Business entity concept (or accounting entity concept) The separate existence of the business organization.

Capital stock The title given to an equity account showing the investment in a business corporation by its stockholders.

Continuity See *going-concern concept.*

Corporation Business incorporated under the laws of one of the states and owned by a few stockholders or by thousands of stockholders.

Cost Sacrifice made or the resources given up, measured in money terms, to acquire some desired thing, such as a new truck (asset).

Dividend Payment (usually of cash) to the owners of a corporation; it is a distribution of income to owners rather than an expense of doing business.

Entity A business unit that is deemed to have an existence separate and apart from its owners, creditors, employees, customers, other interested parties, and other businesses, and for which accounting records are maintained.

Equities Broadly speaking, all claims to, or interests in, assets; includes liabilities and stockholders' equity.

Equity ratio A ratio found by dividing stockholders' equity by total equities (or total assets).

Exchange-price (or cost) concept (principle) The objective money prices determined in the exchange process are used to record most assets.

Expenses Costs incurred to produce revenues, measured by the assets surrendered or consumed in serving customers.

Going-concern (continuity) concept The assumption by the accountant that unless strong evidence exists to the contrary, a business entity will continue operations into the indefinite future.

Income statement Financial statement that shows the revenues and expenses and reports the profitability of a business organization for a stated period of time. Sometimes called an *earnings statement*.

Liabilities Debts owed by a business—or creditors' equity. Examples: notes payable, accounts payable.

Manufacturing companies Companies that buy materials, convert them into products, and then sell the products to other companies or to final customers.

Merchandising companies Companies that purchase goods ready for sale and sell them to customers.

Money measurement concept Recording and reporting economic activity in a common monetary unit of measure such as the dollar.

Net income Amount by which the revenues of a period exceed the expenses of the same period.

Net loss Amount by which the expenses of a period exceed the revenues of the same period.

Notes payable Amounts owed to parties who loan the company money after the owner signs a written agreement (a note) for the company to repay each loan.

Partnership An unincorporated business owned by two or more persons associated as partners.

Periodicity (time periods) concept An assumption that an entity's life can be meaningfully subdivided into time periods (such as months or years) for purposes of reporting its economic activities.

Profitability Ability to generate income. The income statement reflects a company's profitability.

Retained earnings Accumulated net income less dividend distributions to stockholders.

Revenues Inflows of assets (such as cash) resulting from the sale of products or the rendering of services to customers.

Service companies Companies (such as accounting firms, law firms, or dry cleaning establishments) that perform services for a fee.

Single proprietorship An unincorporated business owned by an individual and often managed by that individual.

Solvency Ability to pay debts as they become due. The balance sheet reflects a company's solvency.

Source document Any written or printed evidence of a business transaction that describes the essential facts of that transaction, such as receipts for cash paid or received.

Statement of cash flows Financial statement showing cash inflows and outflows for a company over a period of time.

Statement of retained earnings Financial statement used to explain the changes in retained earnings that occurred between two balance sheet dates.

Stockholders' equity The owners' interest in a corporation.

Stockholders or shareholders Owners of a corporation; they buy shares of stock, which are units of ownership, in the corporation.

Summary of transactions Teaching tool used in Chapter 1 to show the effects of transactions on the accounting equation.

Transaction A business activity or event that causes a measurable change in the items in the accounting equation, Assets = Liabilities + Stockholders' equity.

2.18 Self-test

2.18.1 True-False

Indicate whether each of the following statements is true or false.

The three forms of business organizations are single proprietorship, partnership, and trust.

The three types of business activity are service, merchandising, and manufacturing.

The income statement shows the profitability of the company and is dated as of a particular date, such as 2010 December 31.

The statement of retained earnings shows both the net income for the period and the beginning and ending balances of retained earnings.

The balance sheet contains the same major headings as appear in the accounting equation.

2.18.2 Multiple-choice

Select the best answer for each of the following questions.

The ending balance in retained earnings is shown in the:

a. Income statement.

b. Statement of retained earnings.

c. Balance sheet.

d. Both (b) and (c).

Which of the following is **not** a correct form of the accounting equation?

a. Assets = Equities.

b. Assets = Liabilities + Stockholders' equity.

c. Assets – Liabilities = Stockholders' equity.

d. Assets + Stockholders' equity = Liabilities.

Which of the following is not one of the five underlying assumptions or concepts mentioned in the chapter?

a. Exchange-price concept.

b. Inflation accounting concept.

c. Business entity concept.

d. Going-concern concept.

When the stockholders invest cash in the business, what is the effect?

a. Liabilities increase and stockholders' equity increases.

b. Both assets and liabilities increase.

c. Both assets and stockholders' equity increase.

d. None of the above.

When services are performed on account, what is the effect?

a. Both cash and retained earnings decrease.

b. Both cash and retained earnings increase.

c. Both accounts receivable and retained earnings increase.

d. Accounts payable increases and retained earnings decreases.

Now turn to "Answers to self-test" at the end of your chapter to check your answers.

2.18.3 Questions

- Accounting has often been called the language of business. In what respects would you agree with this description? How might you argue that this description is deficient?
- Define asset, liability, and stockholders' equity.
- How do liabilities and stockholders' equity differ? How are they similar?
- How do accounts payable and notes payable differ? How are they similar?
- Define revenues. How are revenues measured?
- Define expenses. How are expenses measured?
- What is a balance sheet? On what aspect of a business does the balance sheet provide information?
- What is an income statement? On what aspect of a business does this statement provide information?
- What information does the statement of retained earnings provide?
- Identify the three types of activities shown in a statement of cash flows.
- What is a transaction? What use does the accountant make of transactions? Why?

- What is the accounting equation? Why must it always balance?
- Give an example from your personal life that illustrates your use of accounting information in reaching a decision.
- You have been elected to the governing board of your church. At the first meeting you attend, mention is made of building a new church. What accounting information would the board need in deciding whether or not to go ahead?
- A company purchased equipment for USD 2,000 cash. The vendor stated that the equipment was worth USD 2,400. At what amount should the equipment be recorded?
- What is meant by money measurement?
- Of what significance is the exchange-price (or cost) concept? How is the cost to acquire an asset determined?
- What effect does the going-concern (continuity) concept have on the amounts at which long-term assets are carried on the balance sheet?
- Of what importance is the periodicity (time periods) concept to the preparation of financial statements?
- Describe a transaction that would:
- Increase both an asset and capital stock.
- Increase both an asset and a liability.
- Increase one asset and decrease another asset.
- Decrease both a liability and an asset.
- Increase both an asset and retained earnings.
- Decrease both an asset and retained earnings.
- Increase a liability and decrease retained earnings.
- Decrease both an asset and retained earnings.
- Identify the causes of increases and decreases in stockholders' equity
- **Real world question:** Refer to the 2000 financial statements of The Limited in the Annual Report Appendix at the back of the text. What were the net income or loss amounts in the latest three years? Discuss the meaning of the changes after reading management's discussion and analysis of financial condition and results of operations.
- **Real world question:** Refer to the financial statements of The Limited in the Annual Report Appendix. Has the solvency of the company improved from one year to the next? Discuss.

2.18.4 Exercises

Exercise A Match the descriptions in Column B with the appropriate terms in Column A.

	Column A		Column B
1.	Corporation.	a.	An unincorporated business owned by an individual.
2.	Merchandising company.	b.	The form of organization used by most large businesses.
3.	Partnership.	c.	Buys raw materials and converts them into finished products.
4.	Manufacturing company.	d.	Buys goods in their finished form and sells them to
5.	Service company.		customers in that same form.
6.	Single proprietorship.	e.	An unincorporated business with more than one owner.
		f.	Performs services for a fee.

Exercise B Assume that retained earnings increased by USD 3,600 from 2010 June 30, to 2011 June 30. A cash dividend of USD 300 was declared and paid during the year.

a. Compute the net income for the year.

b. Assume expenses for the year were USD 9,000. Compute the revenue for the year.

Exercise C On 2010 December 31, Perez Company had assets of USD 150,000, liabilities of USD 97,500, and capital stock of USD 30,000. During 2011, Perez earned revenues of USD 45,000 and incurred expenses of USD 33,750. Dividends declared and paid amounted to USD 3,000.

a. Compute the company's retained earnings on 2010 December 31.

b. Compute the company's retained earnings on 2011 December 31.

Exercise D At the start of the year, a company had liabilities of USD 50,000 and capital stock of USD 150,000. At the end of the year, retained earnings amounted to USD 135,000. Net income for the year was USD 45,000, and USD 15,000 of dividends were declared and paid. Compute retained earnings and total assets at the beginning of the year.

Exercise E For each of the following events, determine if it has an effect on the specific items (such as cash) in the accounting equation. For the events that do have an effect, present an analysis of the transaction showing its two sides or dual nature.

a. Purchased equipment for cash, USD 12,000.

b. Purchased a truck for USD 40,000, signed a note (with no interest) promising payment in 10 days.

c. Paid USD 1,600 for the current month's utilities.

d. Paid for the truck purchased in (b).

e. Employed Mary Childers as a salesperson at USD 1,200 per month. She is to start work next week.

f. Signed an agreement with a bank in which the bank agreed to lend the company up to USD 200,000 any time within the next two years.

Exercise F Bradley Company, engaged in a courier service business, completed the following selected transactions during July 2010:

a. Purchased office equipment on account.

b. Paid an account payable.

c. Earned service revenue on account.

d. Borrowed money by signing a note at the bank.

e. Paid salaries for month to employees.

f. Received cash on account from a charge customer.

g. Received gas and oil bill for month.

h. Purchased delivery truck for cash.

i. Declared and paid a cash dividend.

Using a tabular form similar to Exhibit 4 (Part A), indicate the effect of each transaction on the accounting equation using (+) for increase and (–) for decrease. No dollar amounts are needed, and you need not fill in the Explanation column.

Exercise G Indicate the amount of change (if any) in the stockholders' equity balance based on each of the following transactions:

a. The stockholders invested USD 100,000 cash in the business by purchasing capital stock.

b. Land costing USD 40,000 was purchased by paying cash.

c. The company performed services for a customer who agreed to pay USD 18,000 in one month.

d. Paid salaries for the month, USD 12,000.

e. Paid USD 14,000 on an account payable.

Exercise H Give examples of transactions that would have the following effects on the items in a firm's financial statements:

a. Increase cash; decrease some other asset.

b. Decrease cash; increase some other asset.

c. Increase an asset; increase a liability.

d. Decrease retained earnings; decrease an asset.

e. Increase an asset other than cash; increase retained earnings.

f. Decrease an asset; decrease a liability.

Exercise I Which of the following transactions results in a decrease in retained earnings? Why?

a. Employees were paid USD 20,000 for services received during the month.

b. USD 175,000 was paid to acquire land.

c. Paid an USD 18,000 note payable. No interest was involved.

d. Paid a USD 200 account payable.

Exercise J Assume that the following items were included in the Retained Earnings column in the summary of transactions for Cinck Company for July 2010:

Salaries expense	$120,000
Service revenue	300,000
Gas and oil expense	27,000
Rent expense	48,000
Dividends paid	40,000

Prepare an income statement for July 2010.

Exercise K Given the following facts, prepare a statement of retained earnings for Brindle Company, a tanning salon, for August 2010:

Balance in retained earnings at end of July, USD 188,000.

Dividends paid in August, USD 63,600.

Net income for August, USD 72,000.

The column totals of a summary of transactions for Speedy Printer Repair, Inc., as of 2010 December 31, were as follows:

Accounts payable	$60,000
Accounts receivable	90,000
Capital stock	100,000
Cash	40,000
Land	80,000
Building	50,000
Equipment	30,000
Notes payable	20,000
Retained earnings	?

Prepare a balance sheet. We have purposely listed the accounts out of order.

Exercise M Merck & Co., Inc. is a world leader in the discovery, development, manufacture and marketing of a broad range of human and animal health products. The company, which has 70,000 employees, spends over USD 2 billion every year on the research and development of new drugs. As of the end of 2, its 2.2 billion shares are valued in the stock market for a total of USD 132 billion. Given the following data for Merck, calculate the equity ratios for 2003 and 2002. Then comment on the results.

	2003	2002
Stockholders' equity	USD 14,832,400,000	USD 13,241,600,000
Total equities	USD 39,910,400,000	USD 35,634,900,000

2.18.5 Problems

Problem A Lakewood Personal Finance Company, which provides financial advisory services, engaged in the following transactions during May 2010:

May 1Received USD 300,000 cash for shares of capital stock issued when company was organized.

2 The company borrowed USD 40,000 from the bank on a note.

7 The company bought USD 182,400 of computer equipment for cash.

11 Cash received for services performed to date was USD 15,200.

14 Services performed for a customer who agreed to pay within a month were USD 10,000.

15 Employee wages were paid, USD 13,200.

19 The company paid USD 14,000 on the note to the bank.

31 Interest paid to the bank for May was USD 140. (Interest is an expense, which reduces retained earnings.)

31 The customer of May 14 paid USD 3,200 of the amount owed to the company.

31 An order was received from a customer for services to be rendered next week, which will be billed at USD 12,000.

Prepare a summary of transactions (see Part A of Exhibit 4). Use money columns headed Cash, Accounts Receivable, Equipment, Notes Payable, Capital Stock, and Retained Earnings. Determine balances after each transaction to show that the accounting equation balances.

Problem B Reliable Lawn Care Service, Inc., a company that takes care of lawns and shrubbery of personal residences, engaged in the following transactions in April 2010:

Apr.1 The company was organized and received USD 400,000 cash from the owners in exchange for capital stock issued.

4 The company bought equipment for cash, USD 101,760.

9 The company bought additional mowing equipment that cost USD 9,120 and agreed to pay for it in 30 days.

15 Cash received for services performed to date was USD 3,840.

16 Amount due from a customer for services performed totaled USD 5,280.

30 Of the receivable (see April 16), USD 3,072 was collected in cash.

30 Miscellaneous operating expenses of USD 6,240 were paid during the month.

30 An order was placed for miscellaneous equipment costing USD 28,800.

a. Prepare a summary of transactions (see Part A of Exhibit 4). Use money columns headed Cash, Accounts Receivable, Equipment, Accounts Payable, Capital Stock, and Retained Earnings. Determine balances after each transaction to show that the basic accounting equation balances.

b. Prepare a balance sheet as of April 30.

Problem C Analysis of the transactions of the Moonlight Drive-In Theater for June 2010 disclosed the following:

Ticket revenue	USD 180000
Equipment rent expense	50000
Film rent expense	53400
Concession revenue	29600
Advertising expense	18600
Salaries expense	60000
Utilities expense	14100
Cash dividends declared and paid	12000

Balance sheet amounts at June 30 include the following:

Cash	USD 140,000
Land	148000
Accounts payable	87600
Capital stock	114000
Retained earnings as of 2010 June 1	84900

a. Prepare an income statement for June 2010.

b. Prepare a statement of retained earnings for June 2010.

c. Prepare a balance sheet as of 2010 June 30.

d. How solvent does this company appear to be?

Problem D Little Folks Baseball, Inc., was formed by a group of parents to meet a need for a place for kids to play baseball. At the beginning of its second year of operations, its balance sheet appeared as follows:

LITTLE FOLKS BASEBALL Balance Sheet 2010 April 30		
Assets		
Cash		$ 56,000
Accounts Receivable		80,000
Land		600,000
Total assets		$ 736,000
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable		$ 64,000
Stockholders' Equity:		
Capital stock	$ 400,000	
Retained earnings	272,000	672,000
Total liabilities and stockholders' equity		$ 736,000

The summarized transactions for May 2010 are as follows:

a. Issued additional capital stock for cash, USD 200,000.

b. Collected USD 80,000 on accounts receivable.

c. Paid USD 64,000 on accounts payable.

d. Received membership fees from parents (nonrefundable): in cash, USD 260,000; and on account, USD 120,000.

e. Incurred operating expenses: for cash, USD 60,000; and on account, USD 160,000.

f. Paid dividends of USD 16,000.

g. Purchased more land for cash, USD 96,000.

h. Placed an order for new equipment expected to cost USD 120,000.

a. Prepare a summary of transactions (see Part A of Exhibit 4) using column headings as given in the balance sheet. Determine balances after each transaction.

b. Prepare an income statement for May 2010.

c. Prepare a statement of retained earnings for May 2010.

d. Prepare a balance sheet as of 2010 May 31.

The balance sheets for 2010 May 31, and 2010 April 30, and the income statement for May of the Target-Line Golf Driving Range follow. (Common practice is to show the most recent period first.)

TARGET-LINE GOLF DRIVING RANGE Comparative Balance Sheet		
	May 31,	April 30,
	2010	2010
Assets		
Cash	$56,400	$46,800
Land	163,200	144,000
Total assets	$219,600	$190,800
Liabilities and Stockholders' Equity		
Accounts payable	$18,000	$27,600
Capital stock	144,000	144,000
Retained earnings	57,600	19,200
Total liabilities and stockholders' equity	$219,600	$190,800
TARGET-LINE GOLF DRIVING RANGE Income Statement For the Month Ended 2010 May 31		
Revenues:		
Service revenue		$64,000
Expenses:		
Salaries expense	$16,000	
Equipment rental expense	9,600	25,600
Net income		$38,400

All revenues earned are on account.

State the probable cause(s) of the change in each of the balance sheet accounts from April 30 to 2010 May 31.

2.18.6 Alternate problems

Alternate problem A Preston Auto Paint Company had the temporary free use of an old building and completed the following transactions in September 2010:

Sept. 1 The company was organized and received USD 100,000 cash from the issuance of capital stock.

5 The company bought painting and sanding equipment for cash at a cost of USD 25,000.

7 The company painted the auto fleet of a customer who agreed to pay USD 8,000 in one week. The customer furnished the special paint.

14 The company received the USD 8,000 from the transaction of September 7.

20 Additional sanding equipment that cost USD 2,800 was acquired today; payment was postponed until September 28.

28 USD 2,400 was paid on the liability incurred on September 20.

30 Employee salaries for the month, USD 2,200, were paid.

30 Placed an order for additional painting equipment advertised at USD 20,000.

Prepare a summary of transactions (see Part A of Exhibit 4) for the company for these transactions. Use money columns headed Cash, Accounts Receivable, Equipment, Accounts Payable, Capital Stock,

and Retained Earnings. Determine balances after each transaction to show that the basic accounting equation balances.

Alternate problem B Quick-Start Home Repair Company completed the following transactions in June 2010:

June 1 The company was organized and received USD 200,000 cash from the issuance of capital stock.

4 The company paid USD 48,000 cash for a truck.

7 The company borrowed USD 10,000 from its bank on a note.

9 Cash received for repair services performed was USD 4,500.

12 Expenses of operating the business so far this month were paid in cash, USD 3,400.

18 Repair services performed for a customer who agreed to pay within a month amounted to USD 5,400.

25 The company paid USD 4,065 on its loan from the bank, including USD 4,050 of principal and USD 15 of interest. (The principal is the amount of the loan. Interest is an expense, which reduces retained earnings.)

30 Miscellaneous expenses incurred in operating the business from June 13 to date were USD 3,825 and were paid in cash.

30 An order (contract) was received from a customer for repair services to be performed tomorrow, which will be billed at USD 3,000.

a. Prepare a summary of transactions (see Part A of Exhibit 4). Include money columns for Cash, Accounts Receivable, Trucks, Notes Payable, Capital Stock, and Retained Earnings. Determine balances after each transaction to show that the basic accounting equation balances.

b. Prepare a balance sheet as of 2010 June 30.

Alternate problem C Following are summarized transaction data for Luxury Apartments, Inc., for the year ending 2010 June 30. The company owns and operates an apartment building.

Rent revenue from building owned	USD 150,000
Building repairs	2870
Building cleaning, labor cost	3185
Property taxes on the building	4000
Insurance on the building	1225
Commissions paid to rental agent	5000
Legal and accounting fees (for preparation of tenant leases)	1260
Utilities expense	8225
Cost of new awnings (installed on June 30, will last 10 years)	5000

Of the USD 150,000 rent revenue, USD 5,000 was not collected in cash until 2010 July 5. Prepare an income statement for the year ended 2010 June 30.

Alternate problem D The following data are for Central District Parking Corporation:

CENTRAL DISTRICT PARKING CORPORATION **Balance Sheet** **2010 October 1**	
Assets	
Cash	$ 344,000
Accounts Receivable	18,000
Total assets	$ 362,000
Liabilities and Stockholders' Equity	
Accounts payable	$ 94,000
Capital stock	232,000
Retained earnings	36,000
Total liabilities and stockholders' equity	$ 362,000

The summarized transactions for October 2010 are as follows:

Oct.1 The accounts payable owed as of September 30 (USD 94,000) were paid.

1 The company paid rent for the premises for October, USD 19,200.

7 The company received cash of USD 4,200 for parking by daily customers during the week.

10 The company collected USD 14,400 of the accounts receivable in the balance sheet at September 30.

14 Cash receipts for the week from daily customers were USD 6,600.

15 Parking revenue earned but not yet collected from fleet customers was USD 6,000.

16 The company paid salaries of USD 2,400 for the period October 1–15.

19 The company paid advertising expenses of USD 1,200 for October.

21 Cash receipts for the week from daily customers were USD 7,200.

24 The company incurred miscellaneous expenses of USD 840. Payment will be due November 10.

31 Cash receipts for the last 10 days of the month from daily customers were USD 8,400.

31 The company paid salaries of USD 3,000 for the period October 16–31.

31 Billings to monthly customers totaled USD 21,600 for October.

31 Paid cash dividends of USD 24,000.

a. Prepare a summary of transactions (see Part A of Exhibit 4) using column headings as given in the preceding balance sheet. Determine balances after each transaction.

b. Prepare an income statement for October 2010.

c. Prepare a statement of retained earnings for October 2010.

d. Prepare a balance sheet as of 2010 October 31.

Alternate problem E The following balance sheets for 2010 June 30, and 2010 May 31, and the income statement for June are for Beach Camping Trailer Storage, Inc. (Common practice is to show the most recent period first.)

BEACH CAMPING TRAILER STOR AGE, INC **Comparative Balance Sheet**		
	June 30,	**May 31,**
	2010	**2010**
Assets		
Cash	$ 52,000	$ 60,000
Accounts receivable	24,000	-0-
Land	36,000	36,000
Total assets	$ 112,000	$ 96,000
Liabilities and Stockholders'	**Equity**	
Accounts payable	$ 18,000	$ 24,000
Capital stock	60,000	60,000
Retained earnings	34,000	12,000
Total liabilities and stockholders' equity	$ 112,000	$ 96,000
BEACH CAMPING TRAILER STORAGE, INC. , **Income Statement For the Month Ended 2010 June 3**		
Revenues:		

Service revenue		$ 100,000
Expenses:		
Salaries expense	$ 48,000	
Supplies bought and used	24,000	72,000
Net income		$ 28,000

A cash dividend of USD 6,000 was declared and paid in June.

State the probable causes of the changes in each of the balance sheet accounts from May 31 to 2010 June 30.

2.18.7 Beyond the numbers—critical thinking

Business decision case A Upon graduation from high school, Jim Crane went to work for a builder of houses and small apartment buildings. During the next six years, Crane earned a reputation as an excellent employee—hardworking, dedicated, and dependable—in the light construction industry. He could handle almost any job requiring carpentry, electrical, or plumbing skills.

Crane then decided to go into business for himself under the name Jim's Fix-It Shop, Inc. He invested cash, some power tools, and a used truck in his business. He completed many repair and remodeling jobs for homeowners and apartment owners. The demand for his services was so large that he had more work than he could handle. He operated out of his garage, which he had converted into a shop, adding several new pieces of power woodworking equipment.

Now, two years after going into business for himself, Crane must decide whether to continue in his own business or to accept a position as construction supervisor for a home builder. He has been offered an annual salary of USD 50,000 and a package of fringe benefits (medical and hospitalization insurance, pension contribution, vacation and sick pay, and life insurance) worth approximately USD 8,000 per year. The offer is attractive to Crane. But he dislikes giving up his business since he has thoroughly enjoyed being his own boss, even though it has led to an average workweek well in excess of the standard 40 hours

Suppose Crane comes to you for assistance in gathering the information needed to help him make a decision. He brings along the accounting records that have been maintained for his business by an experienced accountant. Using logic and your own life experiences, indicate the nature of the information Jim needs if he is to make an informed decision. Pay particular attention to the information likely to be found in his business accounting records. Does the accounting information available enter directly into the decision? Write a memorandum to Jim describing the information he will need to make an informed decision. The memo's headings should include Date, To, From, and Subject. (See the format in Group Project E below.)

Annual report analysis B Recall that in this chapter we showed that the equity ratio is calculated by dividing stockholders' equity by total equities (or total assets). Another format for analyzing solvency is to divide total debt by total equities. This latter calculation tells the proportion of assets financed by debt rather than the proportion of assets financed by stockholders' equity. These two ratios are complements and must add to 100 per cent. Thus, if 25 per cent of assets were financed by debt, 75 per cent were financed by stockholders' equity.

Using the following historical data from Gateway, calculate the "total-debt-to total-capital" ratio for each year.

	2003	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**
Total liabilities (000's)	USD 1,772,205	USD 1,937,570	USD 1,546,005	USD 1,109,337	USD 857,870	USD 568,492	USD 394,545
Total stockholders equity	2380339	2017118	1344375	930044	815541	555519	376035

Study these amounts and comment on the solvency of the company. Is there a trend in the company's solvency over time? Gateway has experienced tremendous growth in stockholders' equity during the past six years, but has also increased liabilities significantly. Could Gateway have grown this much without increasing liabilities?

Annual report analysis C Look at The Limited, Inc., annual report in the Annual report appendix. In that report you will find a letter outlining Management's responsibilities concerning the financial statements, as well as the report of the independent auditors.

Write answers to the following questions:

Who is responsible for preparing the financial statements?

Of what importance is the internal audit?

What is the role of the audit committee?

Why are no officers or employees on the audit committee?

What is the responsibility of the external independent auditor?

Does the independent auditor have absolute assurance that the financial statements are free of material misstatement?

To what extent does the independent auditor examine evidence?

Ethics case- writing experience D Refer to “An ethical perspective: State university”. Write a short essay discussing the alternatives James Stevens could pursue and the likely outcomes of those alternatives. Which of the alternatives you have discussed would you recommend?

Group project E In teams of two or three students, interview a businessperson in your community. Ask how that person uses accounting information in making business decisions and obtain specific examples. Each team should write a memorandum to the instructor summarizing the results of the interview. Information contained in the memo should include:

Date:

To:

From:

Subject:

Content of the memo must include the name and title of the person interviewed, name of the company, date of the interview, examples of the use of accounting information for decision making, and any other pertinent information.

Group project F With a team composed of one or two other students, conceive of a business that you would like to form after graduation. Then describe approximately 15–20 transactions that the business might undertake in its first month of operations. Prepare a summary of transactions showing how each transaction affects the accounting equation. Identify each asset, liability, and stockholders' equity item in your summary of transactions. For instance, instead of grouping all assets in one number, show cash, accounts receivable, and so on in your accounting equation.

Group project G With a team of one or two other students and using library sources, write a paper on the American Institute of Certified Public Accountants, their services to members, and their activities. Be careful to cite sources for your information. Direct quotes should be labeled as such and should be single-spaced and indented if relatively long or in quote marks and not indented if relatively short. To quote without giving the source is plagiarism and should be avoided at all costs.

2.18.8 Using the Internet—A view of the real world

Visit the following website for Nokia:

http://www.nokia.com

Write a short paper describing company information, products and services, and support available for their products.

Visit the following website for Ford Motor Company:

http://www.ford.com

When the web page appears, search for Investor Information and then locate the Ford Motor Company Annual Report. Based on your investigation, write a short paper describing the general content of the annual report.

2.18.9 Answers to self-test

2.18.9.1 True-False

False. Corporation, not trust, is the third form.

True. The accounting for all three of these is covered in this text.

False. The income statement is dated using a period of time, such as "For the Year Ended 2010 December 31".

True. In addition, the statement of retained earnings shows dividends declared.

True. Both show assets, liabilities, and stockholders' equity.

2.18.9.2 Multiple-choice

d. The ending balance in retained earnings is shown in both the statement of retained earnings and in the balance sheet.

d. This form of the equation would not balance.

b. The inflation accounting concept was not one of the ones discussed. The other two were the money measurement concept and the periodicity concept.

c. When the stockholders invest cash, assets and stockholders' equity increase.

c. The performance of services on account increases both accounts receivable and retained earnings.

3 Recording business transactions

3.1 Learning objectives

After studying this chapter, you should be able to:

- Use the account as the basic classifying and storage unit for accounting information.
- Express the effects of business transactions in terms of debits and credits to different types of accounts.
- List the steps in the accounting cycle.
- Record the effects of business transactions in a journal.
- Post journal entries to the accounts in the ledger.
- Prepare a trial balance to test the equality of debits and credits in the journalizing and posting process.
- Analyze and use the financial results—horizontal and vertical analyses.

3.2 Salary potential of accountants

Selecting a major represents much more than the choice of courses a student takes in college. To a significant degree, the student's major, along with academic performance, will determine the career paths available upon graduation. Few professionals would recommend a specific career choice based solely on salaries. However, as students select their major and map out their career path, it is important that they make informed decisions with respect to the potential financial rewards of the various options. Outlined below is information on selected salaries for many accounting-related careers. These salaries, current as of 2009, should be viewed only as guidelines. Salaries at all levels can vary significantly between locations. Also, one should add 10 to 15 per cent to the listed salary for professional certifications (such as the CPA) or for a graduate degree (Masters of Accounting or MBA).

Salaries for Public Accounting, Non-Partners

Position	
Large CPA Firms:	**Salary Range**
Starting Salaries	$35,750 - $42,500
Salary between 1-3 years	$41,000 - $51,250
Manager/Director	$77,750 - $119,000
Small CPA Firms:	
Starting Salaries	$29,500 - $36,250
Salary between 1-3 years	$33,750 - $42,500
Manager/Director	$62,750 - $84,500

Salaries for Corporate Accounting - Large Corporations

Position	Salary Range
Chief Financial Officer/Treasurer	$244,500 - $347,000
Vice President, Finance	$189,000 - $293,500
Director of Finance	$121,500 - $178,250
Director of Accounting	$115,250 - $157,500
Controller	$105,750 - $147,250
Assistant Controller	$89,750 - $114,750
Tax Director	$117,000 - $209,750
Tax Manager	$78,000 - $113,750
Audit Director	$127,750 - $200,750
General Accounting - Manager	$61,250 - $83,250
General Accounting - 1-3 years experience	$37,500 - $48,750
General Accounting - starting salary	$31,750 - $39,750

Students interested in a career in accounting and finance can find detailed information for these and many other accounting related careers at Robert Half (www.roberthalf.com). Also, accounting professors are generally familiar with starting salaries and job opportunities for accounting graduates, so you may want to address more specific questions about potential careers and salaries with them.

In Chapter 1, we illustrated the income statement, statement of retained earnings, balance sheet, and statement of cash flows. These statements are the end products of the financial accounting process, which is based on the accounting equation. The financial accounting process quantifies past management decisions. The results of these decisions are communicated to users—management, creditors, and investors—and serve as a basis for making future decisions.

The raw data of accounting are the business transactions. We recorded the transactions in Chapter 1 as increases or decreases in the assets, liabilities, and stockholders' equity items of the accounting equation. This procedure showed you how various transactions affected the accounting equation. When working through these sample transactions, you probably suspected that listing all transactions as increases or decreases in the transactions summary columns would be too cumbersome in practice. Most businesses, even small ones, enter into many transactions every day. Chapter 2 teaches you how to actually record business transactions in the accounting process.

To explain the dual procedure of recording business transactions with debits and credits, we introduce you to some new tools: the T-account, the journal, and the ledger. Using these tools, you can follow a company through its various business transactions. Like accountants, you can use a trial balance to check the equality of your recorded debits and credits. This is the double-entry accounting

system that the Franciscan monk, Luca Pacioli, described centuries ago. Understanding this system enables you to better understand the content of financial statements so you can use the information provided to make informed business decisions.

3.3 The account and rules of debit and credit

A business may engage in thousands of transactions during a year. An accountant classifies and summarizes the data in these transactions to create useful information.

Steps in recording business transactions

Look at Exhibit 5 to see the steps in recording and posting the effects of a business transaction. Note that source documents provide the evidence that a business transaction occurred. These source documents include such items as bills received from suppliers for goods or services received, bills sent to customers for goods sold or services performed, and cash register tapes. The information in the source document serves as the basis for preparing a journal entry. Then a firm posts (transfers) that information to accounts in the ledger.

You can see from Exhibit 5 that after you prepare the journal entry, you post it to the accounts in the ledger. However, before you can record the journal entry, you must understand the rules of debit and credit. To teach you these rules, we begin by studying the nature of an account.

Fortunately, most business transactions are repetitive. This makes the task of accountants somewhat easier because they can classify the transactions into groups having common characteristics. For example, a company may have thousands of receipts or payments of cash during a year. As a result, a part of every cash transaction can be recorded and summarized in a single place called an account.

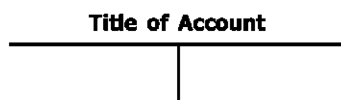
An **account** is a part of the accounting system used to classify and summarize the increases, decreases, and balances of each asset, liability, stockholders' equity item, dividend, revenue, and expense. Firms set up accounts for each different business element, such as cash, accounts receivable, and accounts payable. Every business has a Cash account in its accounting system because knowledge of the amount of cash on hand is useful information.

Accountants may differ on the account title (or name) they give the same item. For example, one accountant might name an account Notes Payable and another might call it Loans Payable. Both account titles refer to the amounts borrowed by the company. The account title should be logical to help the accountant group similar transactions into the same account. Once you give an account a title, you must use that same title throughout the accounting records.

The number of accounts in a company's accounting system depends on the information needs of those interested in the business. The main requirement is that each account provides information

useful in making decisions. Thus, one account may be set up for all cash rather than having a separate account for each form of cash (coins on hand, currency on hand, and deposits in banks). The amount of cash is useful information; the form of cash often is not.

To illustrate recording the increases and decreases in an account, texts use the **T-account**, which looks like a capital letter T. The name of the account, such as Cash, appears across the top of the T. We record increases on one side of the vertical line of the T and decreases on the other side. A T-account appears as follows:



An accounting perspective: Business insight

Have you ever considered starting your own business? If so, you will need to understand accounting to successfully run your business. To know how well your business is doing, you must understand and analyze financial statements. Accounting information also tells you why you are performing as reported. If you are in business to sell or develop a certain product or perform a specific service, you cannot operate profitably or consider expanding unless you base your business decisions on accounting information.

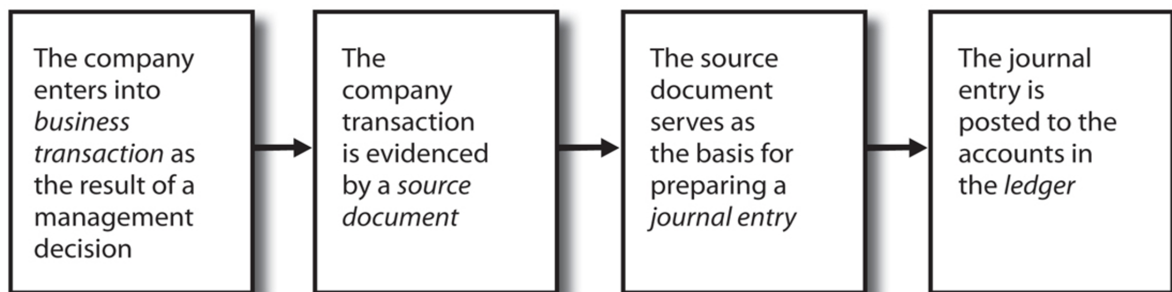


Exhibit 5: The steps in recording and posting the effects of a business transaction

In Chapter 1, you saw that each business transaction affects at least two items. For example, if you—an owner—invest cash in your business, the company's assets increase and its stockholders' equity increases. This result was illustrated in the summary of transactions in Exhibit 1.3. In the following

sections, we use debits and credits and the double-entry procedure to record the increases and decreases caused by business transactions.

Accountants use the term **debit** instead of saying, "Place an entry on the left side of the T-account". They use the term **credit** for "Place an entry on the right side of the T-account". Debit (abbreviated Dr.) simply means left side; credit (abbreviated Cr.) means right side.[1] Thus, for all accounts a debit entry is an entry on the left side, while a credit entry is an entry on the right side.

Any Account	
Left, or debit, side	Right, or credit, side

After recognizing a business event as a business transaction, we analyze it to determine its increase or decrease effects on the assets, liabilities, stockholders' equity items, dividends, revenues, or expenses of the business. Then we translate these increase or decrease effects into debits and credits.

In each business transaction we record, the total dollar amount of debits must equal the total dollar amount of credits. When we debit one account (or accounts) for USD 100, we must credit another account (or accounts) for a total of USD 100. The accounting requirement that each transaction be recorded by an entry that has equal debits and credits is called **double-entry procedure**, or duality. This double-entry procedure keeps the accounting equation in balance.

The dual recording process produces two sets of accounts—those with debit balances and those with credit balances. The totals of these two groups of accounts must be equal. Then, some assurance exists that the arithmetic part of the transaction recording process has been properly carried out. Now, let us actually record business transactions in T-accounts using debits and credits.

3.4 Recording changes in assets, liabilities, and stockholders' equity

While recording business transactions, remember that the foundation of the accounting process is the following basic accounting equation:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$$

Recording transactions into the T-accounts is easier when you focus on the equal sign in the accounting equation. Assets, which are on the left of the equal sign, increase on the left side of the T-accounts. Liabilities and stockholders' equity, to the right of the equal sign, increase on the right side of the T-accounts. You already know that the left side of the T-account is the debit side and the right side

1The abbreviations "Dr." and "Cr." are based on the Latin words "*d*ebe*r*e" and "cred*e*re". A synonym for *debit* an account is *charge* an account.

is the credit side. So you should be able to fill in the rest of the rules of increases and decreases by deduction, such as:

Assets	**=**	**Liabilities**		**+ Stockholders' Equity**	
Debit for increases	Credit for decreases	Debit for decreases	Credit for increases	Debit for decreases	Credit for increases

To summarize:

- Assets increase by debits (left side) to the T-account and decrease by credits (right side) to the T-account.
- Liabilities and stockholders' equity decrease by debits (left side) to the T-account and increase by credits (right side) to the T-account.

Applying these two rules keeps the accounting equation in balance. Now we apply the debit and credit rules for assets, liabilities, and stockholders' equity to business transactions.

Assume a corporation issues shares of its capital stock for USD 10,000 in transaction 1. (Note the figure in parentheses is the number of the transaction and ties the two sides of the transaction together.) The company records the receipt of USD 10,000 as follows:

(Dr.)	**Cash**	*(Cr)*	*(Dr.)*	**Capital Stock**	*(Cr*
(1)	**10,000**			**(1)**	**10,000**

This transaction increases the asset, cash, which is recorded on the left side of the Cash account. Then, the transaction increases stockholders' equity, which is recorded on the right side of the Capital Stock account.

Assume the company borrowed USD 5,000 from a bank on a note (transaction 2). A **note** is an unconditional written promise to pay to another party (the bank) the amount owed either when demanded or at a specified date, usually with interest at a specified rate. The firm records this transaction as follows:

(Dr.)	**Cash**	*(Cr)*	*(Dr.)*	**Notes Payable**	*(Cr)*
(1)				**(2)**	
					5,000
(2)					
	10,000				
	5,000				

Observe that liabilities, Notes Payable, increase with an entry on the right (credit) side of the account.

Recording changes in revenues and expenses In Chapter 1, we recorded the revenues and expenses directly in the Retained Earnings account. However, this is not done in practice because of the volume of revenue and expense transactions. Instead, businesses treat the expense accounts as if they were subclassifications of the debit side of the Retained Earnings account, and the revenue accounts as if they were subclassifications of the credit side. Since firms need the amounts of revenues

and expenses to prepare the income statement, they keep a separate account for each type of revenue and expense. The recording rules for revenues and expenses are:

- Record increases in revenues on the right (credit) side of the T-account and decreases on the left (debit) side. The reasoning behind this rule is that revenues increase retained earnings, and increases in retained earnings are recorded on the right side.
- Record increases in expenses on the left (debit) side of the T-account and decreases on the right (credit) side. The reasoning behind this rule is that expenses decrease retained earnings, and decreases in retained earnings are recorded on the left side.

To illustrate these rules, assume the same company received USD 1,000 cash from a customer for services rendered (transaction 3). The Cash account, an asset, increases on the left (debit) side of the T-account; and the Service Revenue account, an increase in retained earnings, increases on the right (credit) side.

(Dr.)	**Cash**		*(Cr)*	*(Dr.)*	**Service Revenue**		*(Cr)*
(1)	10,000					**(3)**	**1,000**
(2)	5,000						
(3)	**1,000**						

Now assume this company paid USD 600 in salaries to employees (transaction 4). The Cash account, an asset, decreases on the right (credit) side of the T-account; and the Salaries Expense account, a decrease in retained earnings, increases on the left (debit) side.[2]

(Dr)	**Cash**		*(Cr)*	*(Dr.)*	**Salaries Expense**		*(Cr)*
(1)	10,000	**(4)**	**600**	**(4)**	**600**		
(2)	5,000						
(3)	1,000						

Recording changes in dividends *Since dividends decrease retained earnings, increases appear on the left side of the Dividends account and decreases on the right side. Thus, the firm records payment of a USD 2,000 cash dividend (transaction 5) as follows:*

(Dr)	**Cash**		*(Cr)*	*(Dr.)*	**Dividends[3]**		*(Cr)*
(1)	10,000	(4)	600	**(5)**	**2,000**		
(2)	5,000	**(5)**	**2,000**				
(3)	1,000						

2Certain deductions are normally taken out of employees' pay for social security taxes, federal and state withholding, and so on. Those deductions are ignored here.

[3]

At the end of the accounting period, the accountant transfers any balances in the expense, revenue, and Dividends accounts to the Retained Earnings account. This transfer occurs only after the information in the expense and revenue accounts has been used to prepare the income statement. We discuss and illustrate this step in Chapter 4.

To determine the balance of any T-account, total the debits to the account, total the credits to the account, and subtract the smaller sum from the larger. If the sum of the debits exceeds the sum of the credits, the account has a **debit balance**. For example, the following Cash account uses information from the preceding transactions. The account has a debit balance of USD 13,400, computed as total debits of USD 16,000 less total credits of USD 2,600.

(Dr.)	**Cash**		*(Cr)*
(1)	10,000	(4)	600
(2)	5,000	(5)	2,000
(3)	1,000		
	16,000		2,600
Dr. bal	13,400		

If, on the other hand, the sum of the credits exceeds the sum of the debits, the account has a **credit balance**. For instance, assume that a company has an Accounts Payable account with a total of USD 10,000 in debits and USD 13,000 in credits. The account has a credit balance of USD 3,000, as shown in the following T-account:

(Dr.)	**Accounts Payable**	*(Cr)*	
10,000		7,000	
		6,000	
10,000		13,000	
		Cr. bal	3,000

Normal balances Since debits increase asset, expense, and dividend accounts, they normally have debit (or left-side) balances. Conversely, because credits increase liability, capital stock, retained earnings, and revenue accounts, they normally have credit (or right-side) balances.

The following chart shows the normal balances of the seven accounts we have used:

	Normal	**Balances**
Types of Accounts	**Debit**	**Credit**
Assets	X	
Liabilities		X

3As we illustrate later in the text, some companies debt dividends directly to the Retained Earnings account rather than to a Dividends account.

Stockholders' Equity		
Capital Stock		X
Retained earnings		X
Dividends	X	
Expenses	X	
Revenues		X

At this point, you should memorize the six rules of debit and credit. Later, as you proceed in your study of accounting, the rules will become automatic. Then, you will no longer ask yourself, "Is this increase a debit or credit?"

Asset accounts increase on the debit side, while liability and stockholders' equity accounts increase on the credit side. When the account balances are totaled, they conform to the following independent equations:

Assets = Liabilities + Stockholders' Equity

Debits = Credits

The arrangement of these two formulas gives the first three rules of debit and credit:

- Increases in asset accounts are debits; decreases are credits.
- Decreases in liability accounts are debits; increases are credits.
- Decreases in stockholders' equity accounts are debits; increases are credits.

Assets		Liabilities		+ Stockholder's Equity	
				Stockholders' Equity Account(s)	
Asset Accounts	=	Liability Accounts		+ (Capital Stock and Retained Earnings)	
Debit*	Credit	Debit	Credit*	Debit	Credit*
+	-	-	+		+
Debit for increase	Credit for decrease	Debit for decrease	Credit for increase	Debit for decrease	Credit for increase

Debits		Credits	Expense Accounts and Dividends Account		Revenue Accounts	
1. Increase assets.	1.	Decreases assets.	Debit*	Credit	Debit	Credit*
2. Decrease liabilities.	2	Increase liabilities.				
3. Decrease stockholders' equity.	3.	Increase stockholders' equity.	+	-	-	+
4. Decrease revenues.	4.	Increase revenues.	Debit for increase	Credit for decrease	Debit for decrease	Credit for increase
5. Increase expenses.	5.	Decrease expenses.				
6. Increase dividends.	6.	Decrease dividends.				

Exhibit 6: Rules of debit and credit

The debit and credit rules for expense and Dividends accounts and for revenue accounts follow logically if you remember that expenses and dividends are decreases in stockholders' equity and revenues are increases in stockholders' equity. Since stockholders' equity accounts decrease on the

debit side, expense and Dividend accounts increase on the debit side. Since stockholders' equity accounts increase on the credit side, revenue accounts increase on the credit side. The last three debit and credit rules are:

- Decreases in revenue accounts are debits; increases are credits.
- Increases in expense accounts are debits; decreases are credits.
- Increases in Dividends accounts are debits; decreases are credits.

In Exhibit 6, we depict these six rules of debit and credit. Note first the treatment of expense and Dividends accounts as if they were subclassifications of the debit side of the Retained Earnings account. Second, note the treatment of the revenue accounts as if they were subclassifications of the credit side of the Retained Earnings account. Next, we discuss the accounting cycle and indicate where steps in the accounting cycle are discussed in Chapters 2 through 4.

3.5 The accounting cycle

The **accounting cycle** is a series of steps performed during the accounting period (some throughout the period and some at the end) to analyze, record, classify, summarize, and report useful financial information for the purpose of preparing financial statements. Before you can visualize the eight steps in the accounting cycle, you must be able to recognize a business transaction. **Business transactions** are measurable events that affect the financial condition of a business. For example, assume that the owner of a business spilled a pot of coffee in her office or broke her leg while skiing. These two events may briefly interrupt the operation of the business. However, they are not measurable in terms that affect the solvency and profitability of the business.

Business transactions can be the exchange of goods for cash between the business and an external party, such as the sale of a book, or they can involve paying salaries to employees. These events have one fundamental criterion: They must have caused a measurable change in the amounts in the accounting equation, Assets = Liabilities + Stockholders' Equity. The evidence that a business event has occurred is a source document such as a sales ticket, check, and so on. Source documents are important because they are the ultimate proof of business transactions.[4]

After you have determined that an event is a measurable business transaction and have adequate proof of this transaction, mentally analyze the transaction's effects on the accounting equation. You

4Many companies send and receive source documents electronically, rather than on paper. In such an electronic computer environment, source documents might exist only in the computer databases of the two parties involved in the transaction.

learned how to do this in Chapter 1. This chapter and Chapters 3 and 4 describe the other steps in the accounting cycle. The eight steps in the accounting cycle and the chapters that discuss them are:

- Analyze transactions by examining source documents (Chapters 1 and 2).
- Journalize transactions in the journal (Chapter 2).
- Post journal entries to the accounts in the ledger (Chapter 2).
- Prepare a trial balance of the accounts (Chapter 2) and complete the work sheet (Chapter 4). (This step includes adjusting entries from Chapter 3.)
- Prepare financial statements (Chapter 4).
- Journalize and post adjusting entries (Chapters 3 and 4).
- Journalize and post closing entries (Chapter 4).
- Prepare a post-closing trial balance (Chapter 4).

This listing serves as a preview of what you will study in Chapters 2-4. Notice that firms perform the last five steps at the end of the accounting period. Step 5 precedes steps 6 and 7 because management needs the financial statements at the earliest possible date. After the statements have been delivered to management, the adjusting and closing entries can be journalized and posted. In Exhibit 7, we diagram the eight steps in the accounting cycle.

You can perform many of these steps on a computer with an accounting software package. However, you must understand a manual accounting system and all of the steps in the accounting cycle to understand what the computer is doing. This understanding removes the mystery of what the computer is doing when it takes in raw data and produces financial statements.

3.6 The journal

In explaining the rules of debit and credit, we recorded transactions directly in the accounts. Each ledger (general ledger) account shows only the increases and decreases in that account. Thus, all the effects of a single business transaction would not appear in any one account. For example, the Cash account contains only data on changes in cash and does not show how the cash was generated or how it was spent. To have a permanent record of an entire transaction, the accountant uses a book or record known as a journal.

A **journal** is a chronological (arranged in order of time) record of business transactions. A **journal entry** is the recording of a business transaction in the journal. A journal entry shows all the effects of a business transaction as expressed in debit(s) and credit(s) and may include an explanation of the transaction. A transaction is entered in a journal before it is entered in ledger accounts. Because each

transaction is initially recorded in a journal rather than directly in the ledger, a journal is called a book of original entry.

A business usually has more than one journal. Chapter 4 briefly describes several special journals. In this chapter, we use the basic form of journal, the general journal. As shown in Exhibit 8, a general journal contains the following columns:

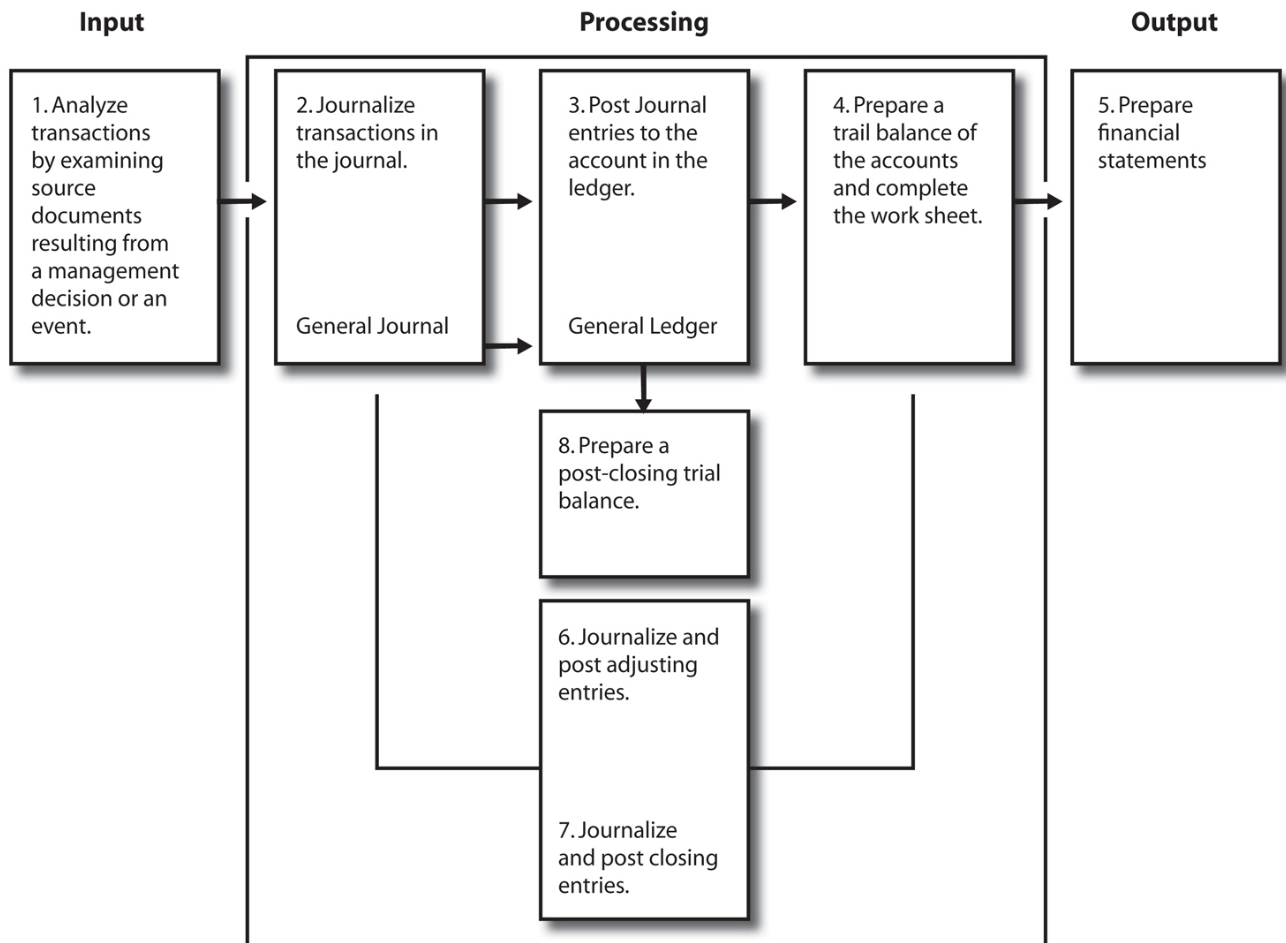


Exhibit 7: Steps in the accounting cycle

MICROTRAIN COMPANY General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Nov.	28	Cash (+A)	100	5 0 0 0 0	
		Capital Stock (+SE)	300		5 0 0 0 0
		Stockholders invested $50,000 cash in business.			

Exhibit 8: Journal entry

- **Date column**. The first column on each journal page is for the date. For the first journal entry on a page, this column contains the year, month, and day (number). For all other journal entries on a page, this column contains only the day of the month, until the month changes.
- **Account titles and explanation column**. The first line of an entry shows the account debited. The second line shows the account credited. Notice that we indent the credit account title to the right. For instance, in Exhibit 8 we show the debit to the Cash account and then the credit to the Capital Stock account. Any necessary explanation of a transaction appears on the line(s) below the credit entry and is indented halfway between the accounts debited and credited. A journal entry explanation should be concise and yet complete enough to describe fully the transaction and prove the entry's accuracy. When a journal entry is self-explanatory, we omit the explanation.
- **Posting reference column**. This column shows the account number of the debited or credited account. For instance, in Exhibit 8, the number 100 in the first entry means that the Cash account number is 100. No number appears in this column until the information has been posted to the appropriate ledger account. We discuss posting later in the chapter.
- **Debit column**. In the debit column, the amount of the debit is on the same line as the title of the account debited.
- **Credit column**. In the credit column, the amount of the credit is on the same line as the title of the account credited.

An account perspective: Uses of technology

Preparing journal entries in a computerized system is different than in a manual system. The computer normally asks for the number of the account to be debited. After you type the account number, the computer shows the account title in its proper position. The cursor then moves to the debit column and waits for you to enter the

amount of the debit. Then it asks if there are more debits. If not, the computer prompts you for the account number of the credit. After you type the account number, the computer supplies the account name of the credit and enters the same amount debited as the credit. When there is more than one credit, you can override the amount and enter the correct amount. Then you would enter the other credit in the same way. If your debits and credits are not equal, the computer warns you and makes you correct the error. You can supply an explanation for the entry from a standard list or type it in. As you enter the journal entries, the computer automatically posts them to the ledger accounts. At any time, you can have the computer print a trial balance.

A summary of the functions and advantages of using a journal follows:

The journal—

- Records transactions in chronological order.
- Shows the analysis of each transaction in debits and credits.
- Supplies an explanation of each transaction when necessary.
- Serves as a source for future reference to accounting transactions.
- Eliminates the need for lengthy explanations from the accounts.
- Makes possible posting to the ledger at convenient times.
- Assists in maintaining the ledger in balance because the debit(s) must always equal the credit(s) in each journal entry.
- Aids in tracing errors when the ledger is not in balance.

3.7 The ledger

A **ledger** (general ledger) is the complete collection of all the accounts of a company. The ledger may be in loose-leaf form, in a bound volume, or in computer memory.

Accounts fall into two general groups: (1) *balance sheet accounts* (assets, liabilities, and stockholders' equity) and (2) *income statement accounts* (revenues and expenses). The terms real accounts and permanent accounts also refer to balance sheet accounts. Balance sheet accounts are **real accounts** because they are not subclassifications or subdivisions of any other account. They are **permanent accounts** because their balances are not transferred (or closed) to any other account at the end of the accounting period. Income statement accounts and the Dividends account are **nominal accounts** because they are merely subclassifications of the stockholders' equity accounts. Nominal literally means "in name only". Nominal accounts are also called **temporary accounts** because they

temporarily contain revenue, expense, and dividend information that is transferred (or closed) to the Retained Earnings account at the end of the accounting period.

The **chart of accounts** is a complete listing of the titles and numbers of all the accounts in the ledger. The chart of accounts can be compared to a table of contents. The groups of accounts usually appear in this order: assets, liabilities, stockholders' equity, dividends, revenues, and expenses.

Individual accounts are in sequence in the ledger. Each account typically has an identification number and a title to help locate accounts when recording data. For example, a company might number asset accounts, 100-199; liability accounts, 200-299; stockholders' equity accounts and Dividends account, 300-399; revenue accounts, 400-499; and expense accounts, 500-599. We use this numbering system in this text. The uniform chart of accounts used in the first 11 chapters appears in a separate file at the end of the text. You should print that file and keep it handy for working certain problems and exercises. Companies may use other numbering systems. For instance, sometimes a company numbers its accounts in sequence starting with 1, 2, and so on. The important idea is that companies use some numbering system.

Now that you understand how to record debits and credits in an account and how all accounts together form a ledger, you are ready to study the accounting process in operation.

3.8 The accounting process in operation

MicroTrain Company is a small corporation that provides on-site personal computer software training using the clients' equipment. The company offers beginning through advanced training with convenient scheduling. A small fleet of trucks transports personnel and teaching supplies to the clients' sites. The company rents a building and is responsible for paying the utilities.

We illustrate the capital stock transaction that occurred to form the company (in November) and the first month of operations (December). The accounting process used by this company is similar to that of any small company. The ledger accounts used by MicroTrain Company are:

	Acct.	Account Title No.	Description
	100	Cash	Bank deposits and cash on hand.
	103	Accounts Receivable	Amounts owed to the company by customers.
Assets	107	Supplies on Hand	Items such as paper, envelopes, writing materials, and other materials used in performing training services for customers or in doing administrative and clerical office work.
	108	Prepaid Insurance	Insurance policy premiums paid in advance of the periods for which the insurance coverage applies.
	112	Prepaid Rent	Rent paid in advance of the periods for which the rent payment applies.
	150	Trucks	Trucks used to transport personnel and training supplies to clients' locations.
	200	Accounts Payable	Amounts owed to creditors for items purchased from them.
Liabilities	216	Unearned Service Fees	Amounts received from customers before the training services have been performed for them.
Stockholders' equity	300	Capital Stock Retained	The stockholders' investment in the business. The earnings
	310	Earnings	retained in the business.
Dividends	320	Dividends	The amount of dividends declared to stockholders.
Revenues	400	Service Revenue	Amounts earned by performing training services for customers.
	505	Advertising Expense	The cost of advertising incurred in the current period.
Expenses	506	Gas and Oil Expense	The cost of gas and oil used in trucks in the current period.
	507	Salaries Expense	The amount of salaries incurred in the current period.
	511	Utilities Expense	The cost of utilities incurred in the current period.

Notice the gaps left between account numbers (100, 103, 107, etc.). These gaps allow the firm to later add new accounts between the existing accounts.

To begin, a transaction must be journalized. **Journalizing** is the process of entering the effects of a transaction in a journal. Then, the information is transferred, or posted, to the proper accounts in the ledger. **Posting** is the process of recording in the ledger accounts the information contained in the journal. We explain posting in more detail later in the chapter.

In the following example, notice that each business transaction affects two or more accounts in the ledger. Also note that the transaction date in both the general journal and the general ledger accounts is the same. In the ledger accounts, the date used is the date that the transaction was recorded in the general journal, even if the entry is not posted until several days later. Our example shows the journal entries posted to T-accounts. In practice, firms post journal entries to ledger accounts, as we show later in the chapter.

Accountants use the accrual basis of accounting. Under the **accrual basis of accounting**, they recognize revenues when the company makes a sale or performs a service, regardless of when the company receives the cash. They recognize expenses as incurred, whether or not the company has paid out cash. Chapter 3 discusses the accrual basis of accounting in more detail.

In the following MicroTrain Company example, transaction 1 increases (debits) Cash and increases (credits) Capital Stock by USD 50,000. First, MicroTrain records the transaction in the general journal; second, it posts the entry to the accounts in the general ledger.

Transaction 1:2010 Nov. 28 Stockholders invested $50,000 and formed MicroTrain Company.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Nov.	28	Cash (+A)	100	5 0 0 0 0	
		Capital Stock (+SE)	300		5 0 0 0 0
		Stockholders invested $50,000 cash in business.			

General Ledger

(Dr.)	**Cash** Acct. No. 100	*(Cr.)*	*(Dr.)*	**Capital Stock** Acct. No. 300	*(Cr.)*
2010				2010	
Nov. 28	50,000			Nov. 28	50,000

No other transactions occurred in November. The company prepares financial statements at the end of each month. Exhibit 9 shows the company's balance sheet at 2010 November 30.

The balance sheet reflects ledger account balances as of the close of business on 2010 November 30. These closing balances are the beginning balances on 2010 December 1. The ledger accounts show these closing balances as beginning balances (Beg. bal.).

Now assume that in December 2010, MicroTrain Company engaged in the following transactions. We show the proper recording of each transaction in the journal and then in the ledger accounts (in T-account form), and describe the effects of each transaction.

MICROTRAIN COMPANY Balance Sheet 2010 November 30

Assets		**Liabilities and Stockholders' Equity**	
Cash	$50,000	Stockholders' equity:	
		Capital stock	$50,000
Total Assets	$50,000	Total liabilities and stockholders' equity	$50,000

Exhibit 9: Balance sheet

Transaction 2: Dec. 1 Paid cash for four small trucks, $40,000.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	1	Trucks (+A)	150	4 0 0 0 0 (A)	
		Cash (-A)	100		4 0 0 0 0 (B)
		To record the purchase of four trucks.			

General Ledger

Trucks

(Dr.)	Acct. No. 150		*(Cr.)*
2010 **Dec. 1**	**(A)40,000**		

Cash

(Dr.)	Acct. No. 100		*(Cr.)*
2010 Dec. 1 Beg. bal.	50,000	2010 **Dec. 1**	**(B)40,000**

Transaction 3: Dec. 1 Paid cash for insurance on the trucks to cover a one-year period from this date.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	1	Prepaid Insurance (+A)	108	2 4 0 0	
		Cash (-A)	100		2 4 0 0
		Purchased truck insurance to cover a one-year period.			

General Ledger

Prepaid Insurance

(Dr)	Acct. No. 108		*(Cr)*
2010 **Dec. 1**	**2,400**		

Cash

(Dr)	Acct. No. 100		*(Cr.)*
2010 Dec. 1 Beg. Bal	50,000	2010 Dec. 1 **Dec. 1**	40,000 **2,40**

Effects of transaction

An asset, prepaid insurance, increases (debited); and an asset, cash, decreases (credited) by USD 2,400. The debit is to Prepaid Insurance rather than Insurance Expense because the policy covers more than the current accounting period of December (insurance policies are usually paid one year in advance). As you will see in Chapter 3, prepaid items are expensed as they are used. If this insurance

policy was only written for December, the entire USD 2,400 debit would have been to Insurance Expense.

Transaction 4: Dec. 1 Rented a building and paid $1,200 to cover a three-month period from this date.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	1	Prepaid Rent (+A)	112	1 2 0 0	
		Cash (-A)	100		1 2 0 0
		Paid three months' rent on a building.			

General Ledger

Prepaid Rent

(Dr.)	Acct. No. 112		*(Cr)*
2010			
Dec. 1	**1,200**		

Cash

(Dr.)	Acct. No. 100		*(Cr.)*
2010		2010	
Dec. 1 Beg. Bal.	50,000	Dec. 1	40,000
		Dec. 1	2,400
		Dec. 1	**1,200**

Effects of transaction

An asset, prepaid rent, increases (debited); and another asset, cash, decreases (credited) by USD 1,200. The debit is to Prepaid Rent rather than Rent Expense because the payment covers more than the current month. If the payment had just been for December, the debit would have been to Rent Expense.

Transaction 5: Dec. 4 Purchased $1,400 of training supplies on account to be used over the next several months.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	4	Supplies on Hand (+A)	107	1 4 0 0	
		Accounts Payable (+L)	200		1 4 0 0
		To record the purchases of training supplies for future use.			

General Ledger

Supplies on Hand

(Dr.)	Acct. No. 107	*(Cr)*	
2010			
Dec. 4	**1,400**		

Accounts Payable

(Dr.)	Acct. No. 200	*(Cr.)*	
		2010	
		Dec. 4	**1,400**

Effects of transaction

An asset, supplies on hand, increases (debited); and a liability, accounts payable, increases (credited) by USD 1,400. The debit is to Supplies on Hand rather than Supplies Expense because the supplies are to be used over several accounting periods.

In each of the three preceding entries, we debited an asset rather than an expense. The reason is that the expenditure applies to (or benefits) more than just the current accounting period. Whenever a company will not fully use up an item such as insurance, rent, or supplies in the period when purchased, it usually debits an asset. In practice, however, sometimes the expense is initially debited in these situations.

Companies sometimes buy items that they fully use up within the current accounting period. For example, during the first part of the month a company may buy supplies that it intends to consume fully during that month. If the company fully consumes the supplies during the period of purchase, the best practice is to debit Supplies Expense at the time of purchase rather than Supplies on Hand. This same advice applies to insurance and rent. If a company purchases insurance that it fully consumes during the current period, the company should debit Insurance Expense at the time of purchase rather than Prepaid Insurance. Also, if a company pays rent that applies only to the current period, Rent Expense should be debited at the time of purchase rather than Prepaid Rent. As illustrated in Chapter 3, following this advice simplifies the procedures at the end of the accounting period.

Transaction 6: Dec. 7   Received $4,500 from a customer in payment for future training services.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	7	Cash (+A)	100	4 5 0 0	
		Unearned Service Fees (+L)	216		4 5 0 0
		To record the receipt of cash from a customer in payment			
		for future training services.			

General Ledger
Cash

(Dr.)	Acct. No. 100		*(Cr)*
2010		2010	
Dec. 1	Beg Bal 50,000	Dec. 1	40,000
Dec. 7	**4,500**	Dec. 1	2,400
		Dec. 1	1,200

Unearned Service Fees

(Dr.)	Acct. No. 216		*(Cr.)*
		2010	
		Dec. 7	**4,500**

Effects of transaction

An asset, cash, increases (debited); and a liability, unearned service revenue, increases (credited) by USD 4,500. The credit is to Unearned Service Fees rather than Service Revenue because the USD 4,500 applies to more than just the current accounting period. Unearned Service Fees is a liability because, if the services are never performed, the USD 4,500 will have to be refunded. If the payment had been for services to be provided in December, the credit would have been to Service Revenue.

Transaction 7: Dec. 15 Performed training services for a customer for cash, $5,000.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	15	Cash (+A)	100	5 0 0 0	
		Service Revenue (+SE)	400		5 0 0 0
		To record the receipt of cash for performing training			
		services for a customer.			

General Ledger

Cash

(Dr.) Acct. No. 100	*(Cr)*
2010	2010
Dec. 1 Beg Bal. 50,000	Dec. 1 40,000
Dec. 7 4,500	Dec. 1 2,400
Dec. 15 5,000	Dec. 1 1,200

Service Revenue

(Dr.) Acct. No. 400	*(Cr.)*
	2010
	Dec. 15 5,000

Effects of transaction

An asset, cash, increases (debited); and a revenue, service revenue, increases (credited) by USD 5,000.

Transaction 8: Dec. 17 Paid the $1,400 account payable resulting from the transaction of December 4.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	17	Accounts Payable (-L)	200	1 4 0 0	
		Cash (-A)	100		1 4 0 0
		Paid the account payable arising from the purchase of			
		Supplies on December 4.			

General Ledger

Accounts Payable

(Dr.) Acct. No. 200	*(Cr)*

2010			2010	
Dec.	**17**	**1,400**	Dec. 4	1,400

Cash

(Dr.)		Acct. No. 100		*(Cr.)*
2010			2010	
Dec.	1 Beg Bal.	50,000	Dec. 1	40,000
Dec.	7	4,500	Dec. 1	2,400
Dec.	15	5,000	Dec. 1	1,200
			Dec 17	**1,400**

Effects of transaction

A liability, accounts payable, decreases (debited); and an asset, cash, decreases (credited) by USD 1,400.

Transaction 9: Dec. 20 Billed a customer for training services performed, $5,700.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	20	Accounts Receivable (+A)	103	5 7 0 0	
		Service Revenue (+SE)	400		5 7 0 0
		To record the performance of training services on account			
		for which a customer was billed.			

General Ledger

Accounts Receivable

(Dr.)	Acct. No. 103		*(Cr)*
2010			
Dec. 20	**5,700**		

Service Revenue

(Dr.)	Acct. No. 400		*(Cr.)*
		2010	
		Dec. 15	5,000
		Dec. 20	**5,700**

Effects of transaction

An asset, accounts receivable, increases (debited); and a revenue, service revenue, increases (credited) by USD 5,700.

Transaction 10: Dec. 24 Received a bill for advertising in a local newspaper in December, $50.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	24	Advertising Expense (-SE)	505	50	
		Accounts Payable (+L)	200		50
		Received a bill for advertising for the month of December.			

General Ledger

Advertising Expense

(Dr.)		Acct. No. 505			*(Cr)*
2010					
Dec.	**24**	**50**			

Accounts Payable

(Dr.)		Acct. No. 200			*(Cr.)*
2010			2010		
Dec.	17	1,400	Dec.	4	1,400
			Dec.	**24**	**50**

Effects of transaction

An expense, advertising expense, increases (debited); and a liability, accounts payable, increases (credited) by USD 50. The reason for debiting an expense rather than an asset is because all the cost pertains to the current accounting period, the month of December. Otherwise, Prepaid Advertising (an asset) would have been debited.

Transaction 11: Dec. 26 Received $500 on accounts receivable from a customer.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	26	Cash (+A)	100	500	
		Accounts Receivable (-A)	103		500
		Received $500 from a customer on accounts receivable			

General Ledger Cash

(Dr.)	Acct. No. 100	*(Cr)*
2010		2010	
Dec. 1 Beg Bal.	50,000	Dec. 1	40,000
Dec. 7	4,500	Dec. 1	2,400
Dec. 15	5,000	Dec. 1	1,200
Dec. 26	**500**	Dec. 17	1,400

Accounts Receivable

(Dr.)	Acct. No. 103	*(Cr.)*
2010		2010	
Dec. 20	5,700	**Dec. 26**	**500**

Effects of transaction

One asset, cash, increases (debited); and another asset, accounts receivable, decreases (credited) by USD 500.

Transaction 12: Dec. 28 Paid salaries of $3,600 to training personnel for the first four weeks of December. (Payroll and other deductions are to be ignored since they have not yet been discussed.)
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	28	Salaries Expense (-SE)	507	3600	
		Cash (-A)	100		3600
		Paid training personnel salaries for the first four weeks of			
		December.			

General Ledger

Salaries Expense

(Dr.)	Acct. No. 507	*(Cr)*
2010		
Dec. 28	**3,600**	

Cash

(Dr.)	Acct. No. 100	*(Cr.)*

2010		2010	
Dec. 1	50,000	Dec. 1	40,000
Dec. 7	4,500	Dec. 1	2,400
Dec. 15	5,000	Dec. 1	1,200
Dec. 26	500	Dec. 17	1,400
		Dec. 28	**3,600**

Effects of transaction

An expense, salaries expense, increases (debited); and an asset, cash, decreases (credited) by USD 3,600.

Transaction 13: Dec. 29 Received and paid the utilities bill for December, $150.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	29	Utilities Expense (-SE)	511	1 5 0	
		Cash (+A)	100		1 5 0
		Paid the utilities bill for December.			

General Ledger

Utilities Expense

(Dr.)	Acct. No. 511		*(Cr)*
2010			
Dec. 29	**150**		

Cash

(Dr.)	Acct. No. 100		*(Cr.)*
2010		2010	
Dec. 1	50,000	Dec. 1	40,000
Dec. 7	4,500	Dec. 1	2,400
Dec. 15	5,000	Dec. 1	1,200
Dec. 26	500	Dec. 17	1,400
		Dec. 28	3,600
		Dec. 29	**150**

Effects of transaction

An expense, utilities expense, increases (debited); and an asset, cash, decreases (credited) by USD 150.

Transaction 14: Dec. 30 Received a bill for gas and oil used in the trucks for December, $680.
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	30	Gas and Oil Expense (-SE)	506	680	
		Accounts Payable (+L)	200		680
		Received a bill for gas and oil used in the trucks for			
		December.			

General Ledger

Gas and Oil Expense

(Dr.)	Acct. No. 506		*(Cr)*
2010			
Dec. 30	**680**		

Accounts Payable

(Dr.)	Acct. No. 200		*(Cr.)*
2010		2010	
Dec. 17	1,400	Dec. 4	1,400
		Dec.24	50

Dec. 30	**680**

Effects of transaction

An expense, gas and oil expense, increases (debited); and a liability, accounts payable, increases (credited) by USD 680.

Transaction 15: Dec. 31 A dividend of $3,000 was paid to stockholders.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	31	Dividends (-SE)	320	3 0 0 0	
		Cash (-A)	100		3 0 0 0
		Dividends were paid to stockholders.			

General Ledger

Dividends

(Dr.)	Acct. No. 320		*(Cr)*
2010			
Dec. 31	**3,000**		

Cash

(Dr.)	Acct. No. 100		*(Cr.)*
2010		2010	
Dec. 1 Beg Bal.	50,000	Dec. 1	40,000
Dec. 7	4,500	Dec. 1	2,400
Dec. 15	5,000	Dec. 1	1,200
Dec. 26	500	Dec. 17	1,400
		Dec. 28	3,600
		Dec. 29	150
		Dec. 31	**3,000**

Effects of transaction

The Dividends account increases (debited); and an asset, cash, decreases (credited) by USD 3,000.

Transaction 15 concludes the analysis of the MicroTrain Company transactions. The next section discusses and illustrates posting to ledger accounts and cross-indexing.

An accounting perspective: Uses of technology

The concept of the Internet dates to the 1960s when the military tied together several computers forming a "network" that allowed users to communicate with each other instantaneously on their computers over many miles.
Then universities and scientific institutions connected to the network to meet their research and communication needs. More and more organizations hooked up to the network over time. Today many companies seek customers and employees over the Internet. Students and faculty use the Internet to perform research, communicate with their colleagues (using e-mail), and search distant libraries. Accountants in practice are heavy users of the Internet to locate company data, tax regulations, and almost any other information they need. You will find that learning to use the Internet effectively is essential to your future success.

3.9 The use of ledger accounts

A journal entry is like a set of instructions. The carrying out of these instructions is known as **posting.** As stated earlier, posting is recording in the ledger accounts the information contained in the journal. A journal entry directs the entry of a certain dollar amount as a debit in a specific ledger account and directs the entry of a certain dollar amount as a credit in a specific ledger account. Earlier, we posted the journal entries for MicroTrain Company to T-accounts. In practice, however, companies post these journal entries to ledger accounts.

Using a new example, Jenks Company, we illustrate posting to ledger accounts. Later, we show you how to post the MicroTrain Company journal entries to ledger accounts.

In Exhibit 10, the first journal entry for the Jenks Company directs that USD 10,000 be posted in the ledger as a debit to the Cash account and as a credit to the Capital Stock account. We post the debit in the general ledger Cash account by using the following procedure: Enter in the Cash account the date, a short explanation, the journal designation ("G" for general journal) and the journal page number from which the debit is posted, and the USD 10,000 in the Debit column. Then, enter the number of the account to which the debit is posted in the Posting Reference column of the general journal. Post the credit in a similar manner but as a credit to Account No. 300. The arrows in Exhibit 10 show how these amounts were posted to the correct accounts.

Exhibit 10 shows the ledger account. In contrast to the two-sided T-account format shown so far, the three-column format has columns for debit, credit, and balance. The three-column form has the

advantage of showing the balance of the account after each item has been posted. In addition, in this chapter, we indicate whether each balance is a debit or a credit. In later chapters and in practice, the nature of the balance is usually not indicated since it is understood. Also, notice that we give an explanation for each item in the ledger accounts. Often accountants omit these explanations because each item can be traced back to the general journal for the explanation.

Posting is always from the journal to the ledger accounts. Postings can be made (1) at the time the transaction is journalized; (2) at the end of the day, week, or month; or (3) as each journal page is filled. The choice is a matter of personal taste. When posting the general journal, the date used in the ledger accounts is the date the transaction was recorded in the journal, not the date the journal entry was posted to the ledger accounts.

Frequently, accountants must check and trace the origin of their transactions, so they provide cross-indexing. **Cross-indexing** is the placing of (1) the account number of the ledger account in the general journal and (2) the general journal page number in the ledger account. As shown in Exhibit 10, the account number of the ledger account to which the posting was made is in the Posting Reference column of the general journal. Note the arrow from Account No. 100 in the ledger to the 100 in the Posting Reference column beside the first debit in the general journal. Accountants place the number of the general journal page from which the entry was posted in the Posting Reference column of the ledger account. Note the arrow from page 1 in Exhibit 10 the general journal to G1 in the Posting Reference column of the Cash account in the general ledger. The notation "G1" means general journal, page 1. The date of the transaction also appears in the general ledger. Note the arrows from the date in the general journal to the dates in the general ledger.

Page 1

JENKS COMPANY
General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Jan.	1(B)	Cash (+A)	(C)100	1 0 0 0 0 (A)	
		Capital Stock (+SE)	300		1 0 0 0 0 (D)
		Stockholders invested $10,000 cash in the business.			
	5	Cash (+A)	100	5 0 0 0	
		Notes Payable (+L)	201		5 0 0 0
		Borrowed $5,000 from the bank on a note.			

:-		**General Ledger Cash**			*Account No 100(C)*
		Explanation	Post Ref.	Debt	Credit	Balance
2010 -Jan.	(B)1	Stockholders investment	G1	(A) 1 0 0 0 0		1 0 0 0 0 Dr
	5	Bank loan	G1	5 0 0 0		1 5 0 0 0 Dr

Notes Payable *Account No. 201*

Date		Explanation	Post Ref.	Debt	Credit	Balance
2010 Jan.	5	Borrowed cash	G1		5 0 0 0	5 0 0 0 Cr

Capital Stock *Account No. 300*

		Explanation	Post Ref.	Debt	Credit	Balance
2010 " Jan.	(B)1	Cash from stockholders	G1		(D) 1 0 0 0 0	1 0 0 0 0 Cr

Exhibit 10: General journal and general ledger; posting and cross-indexing

Cross-indexing aids the tracing of any recorded transaction, either from general journal to general ledger or from general ledger to general journal. Normally, they place cross-reference numbers in the Posting Reference column of the general journal when the entry is posted. If this practice is followed, the cross-reference numbers indicate that the entry has been posted.

MICROTRAIN COMPANY
General Journal

Page1

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Nov.	28	Cash (+A)	100*	50000	
		Capital Stock (+SE)	300		50000
		Stockholders invested $50,000 cash in the business.			
Dec	1	Truck (+A)	150	40000	
		Cash (-A)	100		40000
		To record the purchase of four trucks.			
	1	Prepaid Insurance (+A)	108	2400	
		Cash (-A)	100		2400
		Purchased truck insurance to cover a one-year period.			
	1	Prepaid Rent (+A)	112	1200	
		Cash (-A)	100		1200
		Paid three months' rent on a building.			
	4	Supplies on Hand (+A)	107	1400	
		Accounts Payable (+L)	200		1400
		To record the purchase of training supplies for future use.			
	7	Cash (+A)	100	4500	
		Unearned Service Fees (+L)	216		4500
		To record the receipt of cash from a customer in payment			
		for future training services.			
	15	Cash (+A)	100	5000	
		Service Revenue (+SE)	400		5000
		To record the receipt of cash for performing training			
		services for a customer.			
	17	Accounts Payable (-L)	200	1400	
		Cash (-A)	100		1400
		Paid the account payable arising from the purchase of			
		supplies on December 4.			

General Journal

Page 2

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	20	Accounts Receivable (+A)	103	5700	

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
		Service Revenue (+SE)	400		5700
		To record the performance of training services on account			
		for which a customer was billed.			
	24	Advertising Expense (-SE)	505	50	
		Accounts Payable (+L)	200		50
		Received a bill for advertising for the month of December.			
	26	Cash (+A)	100	500	
		Accounts Receivable (-A)	103		500
		Received $500 from a customer on accounts receivable.			
	28	Salaries Expense (-SE)	507	3600	
		Cash (-A)	100		3600
		Paid training personnel salaries for the first four weeks			
		of December.			
	29	Utilities Expense (-SE)	511	150	
		Cash (-A)	100		150
		Paid the utilities bill for December.			
	30	Gas and Oil Expense (-SE)	506	680	
		Accounts Payable (-A)	200		680
		Received a bill for gas and oil used in the trucks for			
		December.			
	31	Dividends (-SE)	320	3000	
		Cash (-A)	100		3000
		Dividends were paid to stockholders.			

Exhibit 11: General journal (after posting)

To understand the posting and cross-indexing process, trace the entries from the general journal to the general ledger. The ledger accounts need not contain explanations of all the entries, since any needed explanations can be obtained from the general journal.

Look at Exhibit 11 to see how all the November and December transactions of MicroTrain Company would be journalized. As shown in Exhibit 11, you skip a line between journal entries to show where one journal entry ends and another begins. This procedure is standard practice among accountants. Note that no dollar signs appear in journals or ledgers. When amounts are in even dollar amounts, accountants leave the cents column blank or use zeros or a dash. When they use lined accounting work

papers, commas or decimal points are not needed to record an amount. When they use unlined paper, they add both commas and decimal points.

Next, observe Exhibit 12, the three-column general ledger accounts of MicroTrain Company after the journal entries have been posted. Each ledger account would appear on a separate page in the ledger. Trace the postings from the general journal to the general ledger to make sure you know how to post journal entries.

All the journal entries illustrated so far have involved one debit and one credit; these journal entries are called **simple journal entries**. Many business transactions, however, affect more than two accounts. The journal entry for these transactions involves more than one debit and/or credit. Such journal entries are called **compound journal entries.**

As an illustration of a compound journal entry, assume that on 2011 January 2, MicroTrain Company purchased USD 8,000 of training equipment from Wilson Company. See below.

MICROTRAIN COMPANY
General Ledger
Cash

Account No. 100

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	1	Beginning balance*				50000	Dr
	1	Trucks	G1		40000	10000	Dr
	1	Prepaid insurance	G1		2400	7600	Dr
	1	Prepaid rent	G1		1200	6400	Dr
	7	Unearned service fees	G1	4500		10900	Dr
	15	Service revenue	G1	5000		15900	Dr
	17	Paid account payable	G1		1400	14500	Dr
	26	Collected account receivable	G2	500		15000	Dr
	28	Salaries	G2		3600	11400	Dr
	29	Utilities	G2		150	11250	Dr
	31	Dividends	G2		3000	8250	Dr

Accounts Receivable *Account No. 103*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	20	Service revenue	G2	5700		5700	Dr
	26	Collections	G2		500	5200	Dr

Supplies on Hand *Account No. 107*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	4	Purchased on account	G1	1400		1400	Dr

Prepaid Insurance *Account No. 108*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	1	One-year policy on trucks	G1	2400		2400	Dr

General Ledger Page 1

Prepaid Rent *Account No. 112*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	1	Three-month payment	G1	1200		1200	Dr

Trucks *Account No. 150*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	1	Paid cash	G1	40000		40000	Dr

Accounts Payable *Account No. 200*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	4	Supplies	G1		1400	1400	Cr
	17	Paid for supplies	G1	1400		- 0 -	
	24	Advertising	G2		50	50	Cr
	30	Gas and oil	G2		68)	730	Cr

Unearned Service Fees *Account No. 216*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	7	Received cash	G1		4500	4500	Cr

Capital Stock *Account No. 300*

Date		Explanation	Post Ref.	Debit	Credit	Balance	
2010 Dec.	1	Beginning balance				50000	Cr

General Ledger Page 3

Dividends *Account No. 320*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 Dec.	31	Cash	G2	3000		3000	Dr

Service Revenue *Account No. 400*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 Dec.	15	Cash	G1		5000	5000	Cr

	20	On account	G2		5 7 0 0	1 0 7 0 0	Cr

Advertising Expense *Account No. 505*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 Dec.	24	On account	G2	5 0		5 0	Dr

Gas and Oil Expense *Account No. 506*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 Dec.	30	On account	G2	6 8 0		6 8 0	Dr

Salaries Expense *Account No. 507*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 Dec.	28	Cash paid	G2	3 6 0 0		3 6 0 0	Dr

Utilities Expense *Account No. 511*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 Dec.	29	Cash paid	G2	1 5 0		1 5 0	Dr

Exhibit 12: General ledger - Extended illustration

MICROTRAIN COMPANY
Trial Balance
December 31, 2010

Acct. No.	**Account Title**	**Debits**	**Credits**
100	Cash	$ 8,250	
103	Accounts Receivable	5,200	
107	Supplies on Hand	1,400	
108	Prepaid Insurance	2,400	
112	Prepaid Rent	1,200	
150	Trucks	40,000	
200	Accounts Payable		$ 730
216	Unearned Service Fees		4,500
300	Capital Stock		50,000
320	Dividends	3,000	
400	Service Revenue		10,700
505	Advertising Expense	50	
506	Gas and Oil Expense	680	
507	Salaries Expense	3,600	
511	Utilities Expense	150	

Exhibit 13: Trail balance

MicroTrain paid USD 2,000 cash with the balance due on 2011 March 3. The general journal entry for MicroTrain Company is:

			Debit	Credit
2011				
Jan.	2	Equipment (+A)	8,000	
		Cash (-A)		2,000
		Accounts Payable (+L)		6,000
		Training equipment purchased from Wilson Company.		

Note that the firm credits two accounts, Cash and Accounts Payable, in this one entry. However, the dollar totals of the debits and credits are equal.

Periodically, accountants use a trial balance to test the equality of their debits and credits. A **trial balance** is a listing of the ledger accounts and their debit or credit balances to determine that debits equal credits in the recording process. The accounts appear in this order: assets, liabilities, stockholders' equity, dividends, revenues, and expenses. Within the assets category, the most liquid (closest to becoming cash) asset appears first and the least liquid appears last. Within the liabilities, those liabilities with the shortest maturities appear first. Study Exhibit 13, the trial balance for MicroTrain Company. Note the listing of the account numbers and account titles on the left, the column for debit balances, the column for credit balances, and the equality of the two totals.

When the trial balance does not balance, try re-totaling the two columns. If this step does not locate the error, divide the difference in the totals by 2 and then by 9. If the difference is divisible by 2, you may have transferred a debit-balanced account to the trial balance as a credit, or a credit-balanced account as a debit. When the difference is divisible by 2, look for an amount in the trial balance that is equal to one-half of the difference. Thus, if the difference is USD 800, look for an account with a balance of USD 400 and see if it is in the wrong column.

If the difference is divisible by 9, you may have made a transposition error in transferring a balance to the trial balance or a slide error. A transposition error occurs when two digits are reversed in an amount (e.g. writing 753 as 573 or 110 as 101). A slide error occurs when you place a decimal point incorrectly (e.g. USD 1,500 recorded as USD 15.00). Thus, when a difference is divisible by 9, compare the trial balance amounts with the general ledger account balances to see if you made a transposition or slide error in transferring the amounts.

An ethical perspective: Financial Deals, Inc.

Larry Fisher was captain of the football team at Prestige University. Later, he earned a master's degree in business administration with a concentration in accounting.

Upon graduation, Larry accepted a position with Financial Deals, Inc., in the accounting and finance division. At first, things were going smoothly. He was tall, good looking, and had an outgoing personality. The president of the company took a liking to him. However, Larry was somewhat bothered when the president started asking him to do some things that were slightly unethical. When he protested mildly, the president said: "Come on, son, this is the way the business world works. You have great potential if you don't let things like this get in your way."

As time went on, Larry was asked to do things that were more unethical, and finally he was performing illegal acts. When he resisted, the president appealed to his loyalty and asked him to be a team player. The president also promised Larry great wealth sometime in the future. Finally, when he was told to falsify some financial statements by making improper entries and to sign some documents containing material errors, the president supported his request by stating: "You are in too deep now to refuse to cooperate. If I go down, you are going with me." Through various company schemes, Larry had convinced some friends and relatives to invest about USD 10 million. Most of this would be lost if the various company schemes were revealed.

Larry could not sleep at night and began each day with a pain in his stomach and by becoming physically ill. He was under great strain and believed that he could lose his mind. He also heard that the president had a shady past and could become violent in retaliating against his enemies. If Larry blows the whistle, he believes he will go to prison for his part in the schemes. (Note: This scenario is based on an actual situation with some facts changed to protect the guilty.)

If you still cannot find the error, it may be due to one of the following causes:

- Failing to post part of a journal entry.
- Posting a debit as a credit, or vice versa.
- Incorrectly determining the balance of an account.
- Recording the balance of an account incorrectly in the trial balance.
- Omitting an account from the trial balance.

- Making a transposition or slide error in the accounts or the journal.

Usually, you should work backward through the steps taken to prepare the trial balance. Assuming you have already re-totaled the columns and traced the amounts appearing in the trial balance back to the general ledger account balances, use the following steps: Verify the balance of each general ledger account, verify postings to the general ledger, verify general journal entries, and then review the transactions and possibly the source documents.

The equality of the two totals in the trial balance does not necessarily mean that the accounting process has been error-free. Serious errors may have been made, such as failure to record a transaction, or posting a debit or credit to the wrong account. For instance, if a transaction involving payment of a USD 100 account payable is never recorded, the trial balance totals still balance, but at an amount that is USD 100 too high. Both cash and accounts payable would be overstated by USD 100.

You can prepare a trial balance at any time—at the end of a day, a week, a month, a quarter, or a year. Typically, you would prepare a trial balance before preparing the financial statements.

An accounting perspective: Uses of technology

The computers of persons in a given department or building are frequently connected in a Local Area Network (LAN). These persons can then access simultaneously the programs and databases stored in the LAN and can communicate with all other persons in the LAN through email. A more advanced type of computer network is called Client/Server Computing. Under this structure, any computer in the network can be used to update the information stored elsewhere in the network. For example, accounting information stored in one computer could be updated by authorized persons from a number of other computers in the system. The use of networks is designed to improve efficiency and to reduce software and hardware costs.

3.10 Analyzing and using the financial results— Horizontal and vertical analyses

The calculation of dollar and/or percentage changes from one year to the next in an item on financial statements is **horizontal analysis**. For instance, in the following data taken from the 2000 annual report of Hewlett-Packard Company, the amount of inventory increased by USD 836 million from 1999 October 31, to 2000 October 31. This amount represented a 17 per cent increase. To find the

amount of the increase or decrease, subtract the 1999 amount from the 2000 amount. To find the percentage change, divide the increase or decrease by the 1999 amount.

Knowing the dollar amount and percentage of change in an amount is much more meaningful than merely knowing the amount at one point in time. By analyzing the data, we can see that cash and cash equivalents declined in 2000. Their decline at least partially explains the increases in some of the other current assets. We can also see that the company invested in property, plant and equipment. Any terms in Hewlett-Packard's list of assets that you do not understand are explained in later chapters. At this point, all we want you to understand is the nature of horizontal and vertical analyses.

Vertical analysis shows the percentage that each item in a financial statement is of some significant total such as total assets or sales. For instance, in the Hewlett-Packard data we can see that cash and cash equivalents were 15.3 per cent of total assets as of 1999 October 31, and had declined to 10.0 per cent of total assets by 2000 October 31. Total current assets (cash plus other amounts that will become cash or be used up within one year) increased from 61.3 per cent of total assets to 68.3 per cent during 2000. Long-term investments and other non-current assets accounted for 18.4 per cent of total assets as of 2000 October 31.

			Increase or (Decrease) 2000 over 1999		**Percent of Total Assets October 31**	
	2000	**1999**	**Dollars**	**Percent**	**2000**	**1999**
Assets (in millions)						
Current assets:						
Cash and cash equivalents	$ 3,415	$ 5,411	$ (1,996)	-37%	10.0%	15.3%
Short-term investments	592	179	413	231%	1.7%	0.5%
Accounts receivable	6,394	5,958	436	7%	18.8%	16.9%
Financing receivables	2,174	1,889	285	15%	6.4%	5.4%
Inventory	5,699	4,863	836	17%	16.8%	13.8%
Other current assets	4,970	3,342	1,628	49%	14.6%	9.5%
Total current assets	$ 23,244	$ 21,642	$ 1,602	7%	68.3%	61.3%
Property, plant and equipment:						
Property, plant and equipment, net	4,500	4,333	167	4%	13.2%	12.3%
Long-term investments and other non-current assets	6,265	9,322	(3,057)	-33%	18.4%	26.4%
Total assets	$ 34,009	$ 35,297	$ (1,288)	-4%	100.0%	100.0%

Management performs horizontal and vertical analyses along with other forms of analysis to help evaluate the wisdom of its past decisions and to plan for the future. Other data would have to be examined before decisions could be made regarding the assets shown. For instance, if you discovered the liabilities that would have to be paid within a short time by Hewlett-Packard were more than USD 30 billion, you might conclude that the company is short of cash even though current assets increased

substantially during 2000. We illustrate horizontal and vertical analyses to a much greater extent later in the text.

An accounting perspective: Business insight

Many companies have been restructuring their organizations and reducing the number of employees to cut expenses. General Motors, AT&T, IBM, and numerous other companies have taken this action. One could question whether companies place as much value on their employees as in the past. In previous years it was common to see the following statement in the annual reports of companies: "Our employees are our most valuable asset". Companies are not permitted to show employees as assets on their balance sheets. Do you think they should be allowed to do so?

What you have learned in this chapter is basic to your study of accounting. The entire process of accounting is based on the double-entry concept. Chapter 3 explains that adjustments bring the accounts to their proper balances before accurate financial statements are prepared.

3.10.1 Understanding the learning objectives

- An account is a storage unit used to classify and summarize money measurements of business activities of a similar nature.
- A firm sets up an account whenever it needs to provide useful information about a particular business item to some party having a valid interest in the business.
- A T-account resembles the letter T.
- Debits are entries on the left side of a T-account.
- Credits are entries on the right side of a T-account.
- Debits increase asset, expense, and Dividends accounts.
- Credits increase liability, stockholders' equity, and revenue accounts.
- Analyze transactions by examining source documents.
- Journalize transactions in the journal.
- Post journal entries to the accounts in the ledger.
- Prepare a trial balance of the accounts and complete the work sheet.
- Prepare financial statements.

- Journalize and post adjusting entries.
- Journalize and post closing entries. Prepare a post-closing trial balance.
- A journal contains a chronological record of the transactions of a business. An example of a general journal is shown in Exhibit 11. Journalizing is the process of entering a transaction in a journal.
- Posting is the process of transferring information recorded in the journal to the proper places in the ledger.
- Cross-indexing is the placing of (1) the account number of the ledger account in the general journal and (2) the general journal page number in the ledger account.
- An example of cross-indexing appears in Exhibit 10.
- A trial balance is a listing of the ledger accounts and their debit or credit balances.
- If the trial balance does not balance, an accountant works backward to discover the error.
- A trial balance is shown in Exhibit 13.
- Horizontal analysis involves calculating the dollar and/or percentage changes in an item from one year to the next.
- Vertical analysis shows the percentage that each item in a financial statement is of some significant total.

3.10.2 Demonstration problem

Green Hills Riding Stable, Incorporated, had the following balance sheet on 2010 June 30:

GREEN HILLS RIDING STABLE, INCORPORATED
Balance Sheet
2010 June 30

Assets		
Cash		$ 7,500
Accounts receivable		5,400
Land		40,000
Total assets		$ 52,900
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable		$ 800
Notes payable		40,000
Total liabilities		$ 40,800
Stockholders' equity:		
Capital stock	$ 10,000	
Retained earnings	2,100	
Total stockholders' equity		12,100
Total liabilities and stockholders' equity		$52,900

a. Prepare the journal entries to record the transactions for July 2010.

b. Post the journal entries to the ledger accounts after entering the beginning balances in those accounts. Insert cross-indexing references in the journal and ledger. Use the following chart of accounts:

100	Cash	320	Dividends
103	Accounts Receivable	402	Horse Boarding Fees Revenue
130	Land	404	Riding and Lesson Fees Revenue
140	Buildings	507	Salaries Expense
200	Accounts Payable	513	Feed Expense
201	Notes Payable	540	Interest Expense
300	Capital Stock	568	Miscellaneous Expense
310	Retained Earnings		

c. Prepare a trial balance.

3.10.3 Solution to demonstration problem

a.

GREEN HILLS RIDING STABLE, INCORPORATED
General Journal

Page1

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 July	1	Cash (+A)	100	25000	
		Capital Stock (+SE)	300		25000
		Additional capital stock issued.			
	1	Buildings (+A)	140	24000	
		Cash (-A)	100		24000
		Paid for building.			
	8	Account Payable (-L)	200	800	
		Cash (-A)	100		800
		Paid accounts payable.			
	10	Cash (+A)	100	5400	
		Accounts Receivable (-A)	103		5400
		Collected accounts receivable.			
	12	Feed Expense (-SE)	513	1100	
		Accounts Payable (+L)	200		1100
		Purchased feed on account			
	15	Accounts Receivable (+A)	103	4500	
		Horse Boarding Fee Revenue (+SE)	402		4500
		Billed boarding fees for July.			

Date	Day	Account Titles and Explanation	Post Ref.	Debit	Credit
	24	Miscellaneous Expense (-SE)	568	800	
		Cash (-A)	100		800
		Paid miscellaneous expenses for July.			
	31	Interest Expense (-SE)	540	200	
		Cash (-A)	100		200
		Paid interest			
	31	Salaries Expense (-SE)	507	1400	
		Cash (-A)	100		1400
		Paid salaries for July.			
	31	Accounts Receivable (+A)	103	3600	
		Riding and Lesson Fee Revenue (+SE)	404		3600
		Billed riding and lesson fees for July.			
	31	Dividends (-SE)	320	1000	
		Cash (-A)	100		1000
		Paid a dividend to stockholders.			

b.

GREEN HILLS RIDING STABLE, INCORPORATED
General Ledger

Land *Account No. 100*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				75000	Dr
July	1	Stockholders' investment	G1	25000		32500	Dr
	1	Buildings	G1		24000	8500	Dr
	8	Accounts payable	G1		800	7700	Dr
	10	Accounts receivable	G1	5400		13100	Dr
	24	Miscellaneous expense	G1		800	12300	Dr
	31	Interest expense	G1		200	12100	Dr
	31	Salaries expense	G1		1400	10700	Dr
	31	Dividends	G1		1000	9700	Dr

Accounts Receivable *Account No. 103*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				5400	Dr
July	10	Cash	G1		5400	- 0 -	
	15	Horse boarding fees	G1	4500		4500	Dr
	31	Riding and lessons fees	G1	3600		8100	Dr

Land *Account No. 130*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				40000	Dr

Buildings *Account No. 140*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	1	Cash	G1	24000		24000	Dr

Accounts Payable *Account No. 200*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				800	Cr
July	8	Cash	G1	800		-0-	
	12	Feed expense	G1		1100	1100	Cr

General Ledger (continued)

Notes Payable *Account No. 201*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				40000	Cr

Capital Stock *Account No. 300*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				10000	Cr
July	1	Cash	G1		25000	35000	Cr

Retained Earnings *Account No. 310*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 June	30	Balance				2100	Cr

Dividends *Account No. 320*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	31	Cash	G1	1000		1000	Dr

Horse Boarding Fee Revenue *Account No. 402*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	15	Accounts receivable	G1		4500	4500	Cr

Riding and Lesson Fee Revenue *Account No. 404*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	31	Accounts receivable	G1		3 6 0 0	3 6 0 0	Cr

General Ledger (concluded)

Salaries Expense *Account No. 507*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	31	Cash	G1	1 4 0 0		1 4 0 0	Dr

Feed Expense *Account No. 513*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	12	Accounts payable	G1	1 1 0 0		1 1 0 0	Dr

Interest Expense *Account No. 540*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	31	Cash	G1	2 0 0		2 0 0	Dr

Miscellaneous Expense *Account No. 568*

Date		Explanation	Post Ref.	Debt	Credit	Balance	
2010 July	24	Cash	G1	8 0 0		8 0 0	Dr

c. **GREEN HILLS RIDING STABLE, INCORPORATED**

Trial Balance

2010 July 31

Acct. No.	Account Title	Debits	Credits
100	Cash	$ 9,700	
103	Accounts Receivable	8,100	
130	Land	40,000	
140	Buildings	24,000	
200	Accounts Payable		$ 1,100
201	Notes Payable		40,000
300	Capital Stock		35,000
310	Retained Earnings		2,100
320	Dividends	1,000	
402	Horse Boarding Fee Revenue		4,500
404	Riding and Lesson Fee Revenue		3,600
507	Salaries Expense	1,400	
513	Feed Expense	1,100	
540	Interest Expense	200	
568	Miscellaneous Expense	800	
		$86,300	$86,300

3.11 Key terms

Account A part of the accounting system used to classify and summarize the increases, decreases, and balances of each asset, liability, stockholders' equity item, dividend, revenue, and expense. The three-column account is normally used. It contains columns for debit, credit, and balance.

Accounting cycle A series of steps performed during the accounting period (some throughout the period and some at the end) to analyze, record, classify, summarize, and report useful financial information for the purpose of preparing financial statements.

Accrual basis of accounting Recognizes revenues when sales are made or services are performed, regardless of when cash is received. Recognizes expenses as incurred, whether or not cash has been paid out.

Business transactions Measurable events that affect the financial condition of a business.

Chart of accounts The complete listing of the account titles and account numbers of all of the accounts in the ledger; somewhat comparable to a table of contents.

Compound journal entry A journal entry with more than one debit and/or credit.

Credit The right side of any account; when used as a verb, to enter a dollar amount on the right side of an account; credits increase liability, stockholders' equity, and revenue accounts and decrease asset, expense, and Dividends accounts.

Credit balance The balance in an account when the sum of the credits to the account exceeds the sum of the debits to that account.

Cross-indexing The placing of (1) the account number of the ledger account in the general journal and (2) the general journal page number in the ledger account.

Debit The left side of any account; when used as a verb, to enter a dollar amount on the left side of an account; debits increase asset, expense, and Dividends accounts and decrease liability, stockholders' equity, and revenue accounts.

Debit balance The balance in an account when the sum of the debits to the account exceeds the sum of the credits to that account.

Double-entry procedure The accounting requirement that each transaction must be recorded by an entry that has equal debits and credits.

Horizontal analysis The calculation of dollar and/or percentage changes in an item on the financial statements from one year to the next.

Journal A chronological (arranged in order of time) record of business transactions; the simplest form of journal is the two-column general journal.

Journal entry Shows all of the effects of a business transaction as expressed in debit(s) and credit(s) and may include an explanation of the transaction.

Journalizing A step in the accounting recording process that consists of entering the effects of a transaction in a journal.

Ledger The complete collection of all of the accounts of a company; often referred to as the general ledger.

Nominal accounts See temporary accounts.

Note An unconditional written promise to pay to another party the amount owed either when demanded or at a certain specified date.

Permanent accounts (real accounts) Balance sheet accounts; their balances are not transferred (or closed) to any other account at the end of the accounting period.

Posting Recording in the ledger accounts the information contained in the journal.

Real accounts See permanent accounts.

Simple journal entry An entry with one debit and one credit.

T-account An account resembling the letter T, which is used for illustrative purposes only. Debits are entered on the left side of the account, and credits are entered on the right side of the account.

Temporary accounts (nominal accounts) They temporarily contain the revenue, expense, and dividend information that is transferred (or closed) to a stockholders' equity account (Retained Earnings) at the end of the accounting period.

Trial balance A listing of the ledger accounts and their debit or credit balances to determine that debits equal credits in the recording process.

Vertical analysis Shows the percentage that each item in a financial statement is of some significant total such as total assets or sales.

3.12 Self-test

3.12.1 True-false

Indicate whether each of the following statements is true or false.

All of the steps in the accounting cycle are performed only at the end of the accounting period.

A transaction must be journalized in the journal before it can be posted to the ledger accounts.

The left side of any account is the credit side.

Revenues, liabilities, and capital stock accounts are increased by debits.

The dividends account is increased by debits.

If the trial balance has equal debit and credit totals, it cannot contain any errors.

3.12.2 Multiple-choice

Select the best answer for each of the following questions.

When the stockholders invest cash in the business:

a. Capital Stock is debited and Cash is credited.

b. Cash is debited and Dividends is credited.

c. Cash is debited and Capital Stock is credited.

d. None of the above.

Assume that cash is paid for insurance to cover a three-year period. The recommended debit and credit are:

a. Debit Insurance Expense, credit Cash.

b. Debit Prepaid Insurance, credit Cash.

c. Debit Cash, credit Insurance Expense.

d. Debit Cash, credit Prepaid Insurance.

A company received cash from a customer in payment for future delivery services. The correct debit and credit are:

a. Debit Cash, credit Unearned Delivery Fees.

b. Debit Cash, credit Delivery Fee Revenue.

c. Debit Accounts Receivable, credit Delivery Fee Revenue.

d. None of the above.

A company performed delivery services for a customer for cash. The correct debit and credit are:

a. Debit Cash, credit Unearned Delivery Fees.

b. Debit Cash, credit Delivery Fee Revenue.

c. Debit Accounts Receivable, credit Delivery Fee Revenue.

d. None of the above.

A cash dividend of USD 500 was declared and paid to stockholders. The correct journal entry is:

a. Capital stock	500	
Cash		500
b. Cash	500	
Dividends		500
c. Dividends	500	
Cash		500
d. Cash	500	
Capital stock		500

Now turn to "Answers to self-test" at the end of the chapter to check your answers.

3.12.3 Questions

- Describe the steps in recording and posting the effects of a business transaction.
- Give some examples of source documents.
- Define an account. What are the two basic forms (styles) of accounts illustrated in the chapter?
- What is meant by the term double-entry procedure, or duality?
- Describe how you would determine the balance of a T-account.
- Define debit and credit. Name the types of accounts that are:
  - Increased by a debit.
  - Decreased by a debit.

    - Increased by a credit.
    - Decreased by a credit.
- Do you think this system makes sense? Can you conceive of other possible methods for recording changes in accounts?
- Which of the steps in the accounting cycle are performed throughout the accounting period?
- Which of the steps in the accounting cycle are performed only at the end of the accounting period?
- Why are expense and revenue accounts used when all revenues and expenses could be shown directly in the Retained Earnings account?
- What is the purpose of the Dividends account and how is it increased?
- Are the following possibilities conceivable in an entry involving only one debit and one credit? Why?
    - Increase a liability and increase an expense.
    - Increase an asset and decrease a liability.
    - Increase a revenue and decrease an expense.
    - Decrease an asset and increase another asset.
    - Decrease an asset and increase a liability.
    - Decrease a revenue and decrease an asset.
    - Decrease a liability and increase a revenue.
- Describe the nature and purposes of the general journal. What does journalizing mean? Give an example of a compound entry in the general journal.
- Describe a ledger and a chart of accounts. How do these two compare with a book and its table of contents?
- Describe the act of posting. What difficulties could arise if no cross-indexing existed between the general journal and the ledger accounts?
- Which of the following cash payments would involve the immediate recording of an expense? Why?
    - Paid vendors for office supplies previously purchased on account.
    - Paid an automobile dealer for a new company auto.
    - Paid the current month's rent.
    - Paid salaries for the last half of the current month.

- What types of accounts appear in the unadjusted trial balance? What are the purposes of this trial balance?
- You have found that the total of the Debits column of the trial balance of Burns Company is USD 200,000, while the total of the Credits column is USD 180,000. What are some possible causes of this difference? If the difference between the columns is divisible by 9, what types of errors are possible?
- Store equipment was purchased for USD 2,000. Instead of debiting the Store Equipment account, the debit was made to Delivery Equipment. Of what help will the trial balance be in locating this error? Why?
- A student remembered that the side toward the window in the classroom was the debit side of an account. The student took an examination in a room where the windows were on the other side of the room and became confused and consistently reversed debits and credits. Would the student's trial balance have equal debit and credit totals? If there were no existing balances in any of the accounts to begin with, would the error prevent the student from preparing correct financial statements? Why?

3.12.4 Exercises

Exercise A A diagram of the various types of accounts follows. Show where pluses (+) or minuses (-) should be inserted to indicate the effect debits and credits have on each account.

Asset	**Accounts =**	**Liability Accounts**	**+**	**Stockholders' Equity Accounts**			
Debit	Credit	Debit	Credit	Debit		Credit	
				Expense and Dividends Accounts Account		**Revenue**	**Accounts**
				Debit*	Credit	Debit	Credit*

Exercise B Prepare the journal entry required for each of the following transactions:

a. Cash was received for services performed for customers, USD 1,200.

b. Services were performed for customers on account, USD 4,200.

Exercise C Prepare the journal entry required for each of the following transactions:

a. Capital stock was issued for USD 100,000.

b. Purchased machinery for cash, USD 30,000.

Exercise D Prepare the journal entry required for each of the following transactions:

a. Capital stock was issued for USD 200,000 cash.

b. A USD 30,000 loan was arranged with a bank. The bank increased the company's checking account by USD 30,000 after management of the company signed a written promise to return the USD 30,000 in 30 days.

c. Cash was received for services performed for customers, USD 700.

d. Services were performed for customers on account, USD 1,200.

Exercise E For each of the following unrelated transactions, give the journal entry to record the transaction. Then show how the journal entry would be posted to T-accounts. You need not include explanations or account numbers.

a. Capital stock was issued for USD 100,000 cash.

b. Salaries for a period were paid to employees, USD 24,000.

c. Services were performed for customers on account, USD 40,000.

Exercise F Explain each of the sets of debits and credits in these accounts for Tuxedos, Inc., a company that rents wedding clothing and accessories. There are 10 transactions to be explained. Each set is designated by the small letters to the left of the amount. For example, the first transaction is the issuance of capital stock for cash and is denoted by the letter (a).

	Cash				Dividends		
(a)	200,000	(b)	150,000	(e)	1,000		
(d)	1,800	(e)	1,000				
		(f)	600				
		(g)	2,000				
		(i)	30,000				
Bal.	' 18,200						
	Accounts Receivable				**Service Revenue**		
(c)	1,800	(d)	1,800			(c)	1,800
(J)	12,000					(J)	12,000
Bal.	12,000					Bal.	13,80C
	Supplies	**on Hand**			**Rent Expense**		
(b)	150,000			(f)	600		
(i)	30,000						
Bal.	180,000						
	Accounts Payable				**Delivery**	**Expense**	
		(h)	800	(h)	800		
	Capital Stock				**Salaries Expense**		
		(a)	200,000	(g)	2,000		

Exercise G Assume the ledger accounts given in the previous problem are those of Tuxedos, Inc., as they appear at 2010 December 31. Prepare the trial balance as of that date.

Exercise H Prepare journal entries to record each of the following transactions for Sanchez Company. Use the letter of the transaction in place of the date. Include an explanation for each entry.

a. Capital stock was issued for cash, USD 300,000.

b. Purchased trucks by signing a note bearing no interest, USD 210,000.

c. Earned service revenue on account, USD 4,800.

d. Collected the account receivable resulting from transaction (c), USD 4,800.

e. Paid the note payable for the trucks purchased, USD 210,000.

f. Paid utilities for the month in the amount of USD 1,800.

g. Paid salaries for the month in the amount of USD 7,500.

h. Incurred supplies expenses on account in the amount of USD 1,920.

i. Purchased another truck for cash, USD 48,000.

j. Performed delivery services on account, USD 24,000.

Exercise I Using the data in the previous problem, post the entries to T-accounts. Write the letter of the transaction in the account before the dollar amount. Determine a balance for each account.

Exercise J Using your answer for the previous exercise, prepare a trial balance. Assume the date of the trial balance is 2010 March 31.

Exercise K John Adams owns and manages a bowling center called Strike Lanes. He also maintains his own accounting records and was about to prepare financial statements for the year 2010. When he prepared the trial balance from the ledger accounts, the total of the debits column was USD 435,000, and the total of the credits column was USD 425,000. What are the possible reasons why the totals of the debits and credits are out of balance? How would you normally proceed to find an error if the two trial balance columns do not agree?

Exercise L Refer to the Consolidated Balance Sheets of The Limited in the Annual Report Appendix located in the back of this text. Perform both horizontal and vertical analysis on each of The Limited's asset accounts, treating total assets as a significant total for vertical analysis. comment on the results.

Note: While you can certainly do this exercise with a calculator, computer spreadsheets such as Excel are ideal for this type of analysis.

3.12.5 Problems

Problem A The transactions of Lightning Package Delivery Company for March 2010 follow:

Mar. 1 The company was organized and issued capital stock for USD 300,000 cash.

2 Paid USD 6,000 as the rent for March on a completely furnished building.

5 Paid cash for delivery trucks, USD 180,000.

6 Paid USD 4,000 as the rent for March on two forklift trucks.

9 Paid USD 2,200 for supplies received and used in March.

12 Performed delivery services for customers who promised to pay USD 27,000 at a later date.

20 Collected cash of USD 4,500 from customers on account (see March 12 entry).

21 Received a bill for USD 1,200 for advertising in the local newspaper in March.

27 Paid cash for gas and oil consumed in March, USD 450.

31 Paid USD 2,400 salaries to employees for March.

31 Received an order for services at USD 12,000. The services will be performed in April.

31 Paid cash dividend, USD 1,000.

Prepare the journal entries required to record these transactions in the general journal of the company.

Problem B Economy Laundry Company had the following transactions in August 2010:

Aug. 1 Issued capital stock for cash, USD 150,000.

3 Borrowed USD 40,000 from the bank on a note.

4 Purchased cleaning equipment for USD 25,000 cash.

6 Performed services for customers who promised to pay later, USD 16,000.

7 Paid this month's rent on a building, USD 2,800.

10 Collections were made for the services performed on August 6, USD 3,200.

14 Supplies were purchased on account for use this month, USD 3,000.

17 A bill for USD 400 was received for utilities for this month.

25 Laundry services were performed for customers who paid immediately, USD 22,000.

31 Paid employee salaries, USD 6,000.

31 Paid cash dividend, USD 2,000.

a. Prepare journal entries for these transactions.

b. Post the journal entries to T-accounts. Enter the account number in the Posting Reference column of the journal as you post each amount. Use the following account numbers:

Acct. No.	Account Title
100	Cash
103	Accounts receivable
170	Equipment
200	Accounts payable
201	Notes payable
300	Capital stock
320	Dividends
400	Service revenue
507	Salaries expense
511	Utilities expense
515	Rent expense
518	Supplies expense

c. Prepare a trial balance as of 2010 August 31.

Problem C Clean-Sweep Janitorial, Inc., a company providing janitorial services, was organized 2010 July 1. The following account numbers and titles constitute the chart of accounts for the company:

Acct. No.	Account Title
100	Cash
103	Accounts receivable
150	Trucks
160	Office equipment
170	Equipment
200	Accounts payable
201	Notes payable
300	Capital stock
310	Retained earnings
320	Dividends
400	Service revenue
506	Gas and oil expense
507	Salaries expense
511	Utilities expense
512	Insurance expense
515	Rent expense
518	Supplies expense

July 1 The company issued USD 600,000 of capital stock for cash.

5 Office space was rented for July, and USD 5,000 was paid for the rental.

8 Desks and chairs were purchased for the office on account, USD 28,800.

10 Equipment was purchased for USD 50,000; a note was given, to be paid in 30 days.

15 Purchased trucks for USD 150,000, paying USD 120,000 cash and giving a 60-day note to the dealer for USD 30,000.

July 18 Paid for supplies received and already used, USD 2,880.

23 Received USD 17,280 cash as service revenue.

27 Insurance expense for July was paid, USD 4,500.

30 Paid for gasoline and oil used by the truck in July, USD 576.

31 Billed customers for janitorial services rendered, USD 40,320.

31 Paid salaries for July, USD 51,840.

31 Paid utilities bills for July, USD 5,280.

31 Paid cash dividends, USD 9,600.

a. Prepare general ledger accounts for all of these accounts except Retained Earnings. The Retained Earnings account has a beginning balance of zero and maintains this balance throughout the period.

b. Journalize the transactions given for July 2010 in the general journal.

c. Post the journal entries to ledger accounts.

d. Prepare a trial balance as of 2010 July 31.

Problem D Trim Lawn, Inc., is a lawn care company. Thus, the company earns its revenue from sending its trucks to customers' residences and certain commercial establishments to care for lawns and shrubbery. Trim Lawn's trial balance at the end of the first 11 months of the year follows:

TRIM LAWN, INC.

Trial Balance

2010 November 30

Acct. No.	Account Title	Debits	Credits
100	Cash	$ 63,740	
103	Accounts Receivable	88,600	
150	Trucks	102,900	
160	Office Furniture	8,400	
200	Accounts Payable		$ 33,600
300	Capital Stock		30,000
310	Retained Earnings, 2010 January 1		30,540
400	Service Revenue		371,010
505	Advertising Expense	18,300	
506	Gas an d Oil Expense	21,900	
507	Salaries Expense	65,850	
511	Utilities Expense	2,310	
515	Rent Expense	15,000	
518	Supplies Expense	75,600	
531	Entertainment Expense	2,550	
		$465,150	$465,150

Dec. 2 Paid rent for December, USD 3,000.

5 Paid the accounts payable of USD 33,600.

8 Paid advertising for December, USD 1,500.

10 Purchased a new office desk on account, USD 1,050.

13 Purchased USD 240 of supplies on account for use in December.

15 Collected cash from customers on account, USD 75,000.

20 Paid for customer entertainment, USD 450.

24 Collected an additional USD 6,000 from customers on account.

26 Paid for gasoline used in the trucks in December, USD 270.

28 Billed customers for services rendered, USD 79,500.

30 Paid for more December supplies, USD 12,000.

31 Paid December salaries, USD 15,300.

31 Paid a USD 4,000 cash dividend. (The Dividends account is No. 320.)

a. Open three-column general ledger accounts for each of the accounts in the trial balance under the date of 2010 December 1. Place the word Balance in the explanation space of each account. Also open an account for Dividends, No. 320.

b. Prepare entries in the general journal for the preceding transactions for December 2010.

c. Post the journal entries to three-column general ledger accounts.

d. Prepare a trial balance as of 2010 December 31.

Problem E Marc Miller prepared the following trial balance from the ledger of the Quick-Fix TV Repair Company. The trial balance did not balance.

QUICK-FIX REPAIR COMPANY

Trial Balance

2010 December 31

Acct. No.	**Account Title**	**Debits**	**Credits**
100	Cash	$ 69,200	
103	Accounts Receivable	60,800	
160	Office Furniture	120,000	
172	Office Equipment	48,000	
200	Accounts Payable		$ 32,400
300	Capital Stock		180,000
310	Retained Earnings		80,000
320	Dividends	28,800	
400	Service Revenue		360,000
507	Salaries Expense	280,000	
515	Rent Expense	40,000	
568	Miscellaneous Expense	7,200	
		$654,000	$652,400

The difference in totals in the trial balance caused Miller to carefully examine the company's accounting records. In searching back through the accounting records, Miller found that the following errors had been made:

- One entire entry that included a USD 10,000 debit to Cash and a USD 10,000 credit to Accounts Receivable was never posted.
- In computing the balance of the Accounts Payable account, a credit of USD 3,200 was omitted from the computation.
- In preparing the trial balance, the Retained Earnings account balance was shown as USD 80,000. The ledger account has the balance at its correct amount of USD 83,200.
- One debit of USD 2,400 to the Dividends account was posted as a credit to that account.

- Office equipment of USD 12,000 was debited to Office Furniture when purchased.

Prepare a corrected trial balance for the Quick-Fix TV Repair Company as of 2010 December 31. Also, write a description of the effect(s) of each error.

3.12.6 Alternate problems

Alternate problem A Speedy Laundry Company, Inc., entered into the following transactions in August 2010:

Aug. 1 Received cash for capital stock issued to owners, USD 400,000.

3 Paid rent for August on a building and laundry equipment rented, USD 3,000.

6 Performed laundry services for USD 2,000 cash.

8 Secured an order from a customer for laundry services of USD 7,000. The services are to be performed next month.

13 Performed laundry services for USD 6,300 on account for various customers.

15 Received and paid a bill for USD 430 for supplies used in operations.

23 Cash collected from customers on account, USD 2,600.

31 Paid USD 2,400 salaries to employees for August.

31 Received the electric and gas bill for August, USD 385, but did not pay it at this time.

31 Paid cash dividend, USD 1,000.

Prepare journal entries for these transactions in the general journal.

Alternate problem B The transactions listed below are those of Reliable Computer Repair, Inc., for April 2010:

Apr. 1 Cash of USD 500,000 was received for capital stock issued to the owners.

3 Rent was paid for April, USD 3,500.

6 Trucks were purchased for USD 56,000 cash.

7 Office equipment was purchased on account from Wagner Company for USD 76,800.

14 Salaries for first two weeks were paid, USD 12,000.

15 USD 28,000 was received for services performed.

18 An invoice was received from Roger's Gas Station for USD 400 for gas and oil used during April.

23 A note was arranged with the bank for USD 80,000. The cash was received, and a note promising to return the USD 80,000 on 2010 May 30, was signed.

29 Purchased trucks for USD 73,600 by signing a note.

30 Salaries for the remainder of April were paid, USD 14,400.

a. Prepare journal entries for these transactions.

b. Post the journal entries to T-accounts. Enter the account number in the Posting Reference column of the journal as you post each amount. Use the following account numbers:

Acct. No.	Account Title
100	Cash
150	Trucks
172	Office equipment
200	Accounts payable
201	Notes payable
300	Capital stock
400	Service revenue
506	Gas and oil expense
507	Salaries expense
515	Rent expense

c. Prepare a trial balance as of 2010 April 30.

Alternate problem C Rapid Pick Up & Delivery, Inc., was organized 2010 January 1. Its chart of accounts is as follows:

Acct. No.	Account title
100	Cash
103	Accounts receivable
150	Trucks
160	Office furniture
172	Office equipment
200	Accounts payable
201	Notes payable
300	Capital stock
310	Retained earnings
400	Service revenue
506	Gas and oil expense
507	Salaries expense
511	Utilities expense
512	Insurance expense
515	Rent expense
530	Repairs expense

Jan. 1 The company received USD 560,000 cash and USD 240,000 of office furniture in exchange for USD 800,000 of capital stock.

2 Paid garage rent for January, USD 6,000.

4 Purchased computers on account, USD 13,200.

6 Purchased delivery trucks for USD 280,000; payment was made by giving cash of USD 150,000 and a 30-day note for the remainder.

Jan 12 Purchased insurance for January on the delivery trucks. The cost of the policy, USD 800, was paid in cash.

15 Received and paid January utilities bills, USD 960.

15 Paid salaries for first half of January, USD 3,600.

17 Cash received for delivery services to date amounted to USD 1,800.

20 Received bill for gasoline purchased and used in January, USD 180.

23 Purchased delivery trucks for cash, USD 108,000.

25 Cash sales of delivery services were USD 2,880.

27 Purchased a copy machine on account, USD 3,600.

31 Paid salaries for last half of January, USD 4,800.

31 Sales of delivery services on account amounted to USD 11,400.

31 Paid for repairs to a delivery truck, USD 1,120.

a. Prepare general ledger accounts for all these accounts except Retained Earnings. The Retained Earnings account has a beginning balance of zero and maintains this balance throughout the period.

b. Journalize the transactions given for 2010 January in the general journal.

c. Post the journal entries to ledger accounts.

d. Prepare a trial balance as of 2010 January 31.

Alternate problem 4 The trial balance of California Tennis Center, Inc., at the end of the first 11 months of its fiscal year follows:

CALIFORNIA TENNIS CENTER, INC.
Trial Balance
2010 November 30

Acct. No.	Account Title	Debits	Credits
100	Cash	$71,180	
103	Accounts Receivable	81,750	
130	Land	60,000	
200	Accounts Payable		$18,750
201	Notes Payable		15,000
300	Capital Stock		50,000
310	Retained Earnings, 2010 January 1		53,700
413	Membership and Lesson Revenue		202,500
505	Advertising Expense	21,000	
507	Salaries Expense	66,000	
511	Utilities Expense	2,100	
515	Rent Expense	33,000	
518	Supplies Expense	2,250	
530	Repairs Expense	1,500	
531	Entertainment Expense	870	
540	Interest Expense	300	
		$339,950	$339,950

Dec. 1 Paid building rent for December, USD 4,000.

2 Paid vendors on account, USD 18,000.

5 Purchased land for cash, USD 10,000.

7 Sold memberships on account for December, USD 27,000.

10 Paid the note payable of USD 15,000, plus interest of USD 150.

13 Cash collections from customers on account, USD 36,000.

19 Received a bill for repairs, USD 225.

24 Paid the December utilities bill, USD 180.

28 Received a bill for December advertising, USD 1,650.

29 Paid the equipment repair bill received on the 19th, USD 225.

30 Gave tennis lessons for cash, USD 4,500.

30 Paid salaries, USD 6,000.

30 Sales of memberships on account since December 7, USD 18,000 (for the month of December).

30 Costs paid in entertaining customers in December, USD 350.

30 Paid dividends of USD 1,500. (The Dividends account is No. 320.)

a. Open three-column general ledger accounts for each of the accounts in the trial balance. Place the word Balance in the explanation space and enter the date 2010 December 1, on this same line. Also open an account for Dividends, No. 320.

b. Prepare entries in the general journal for the transactions during December 2010.

c. Post the journal entries to ledger accounts.

d. Prepare a trial balance as of 2010 December 31.

Alternate problem E Bill Baxter prepared a trial balance for Special Party Rentals, Inc., a company that rents tables, chairs, and other party supplies. The trial balance did not balance. The trial balance he prepared was as follows:

SPECIAL PARTY RENTALS, INC.
Trial Balance
2010 December 31

Acct. No.	Account Title	Debits	Credits
100	Cash	$ 74,000	
103	Accounts Receivable	50,800	
170	Equipment	160,000	
200	Accounts Payable		$ 34,000
300	Capital Stock		130,000
310	Retained Earnings		44,000
320	Dividends	16,000	
400	Service Revenue		432,000
505	Advertising Expense	1,200	
507	Salaries Expense	176,000	
511	Utilities Expense	44,800	
515	Rent Expense	64,000	
		$ 586,800	$ 640,000

In trying to f ind out why the trial balance did not balance, Baxter discovered the following errors:

Equipment was understated (too low) by USD 12,000 because of an error in addition in determining the balance of that account in the ledger.

A credit of USD 4,800 to Accounts Receivable in the journal was not posted to the ledger account at all.

A debit of USD 16,000 for a semiannual dividend was posted as a credit to the Capital Stock account.

The balance of USD 12,000 in the Advertising Expense account was entered as USD 1,200 in the trial balance.

Miscellaneous Expense (Account No. 568), with a balance of USD 3,200, was omitted from the trial balance.

Prepare a corrected trial balance as of 2010 December 31. Also, write a description of the effect(s) of each error.

3.12.7 Beyond the numbers—Critical thinking

Business decision case A John Jacobs lost his job as a carpenter with a contractor when a recession hit the construction industry. Jacobs had been making USD 50,000 per year. He decided to form his own company, Jacobs Corporation, and do home repairs.

The following is a summary of the transactions of the business during the first three months of operations in 2010:

Jan. 15 Stockholders invested USD 40,000 in the business.

Feb. 25 Received payment of USD 4,400 for remodeling a basement into a recreation room. The homeowner purchased all of the building materials.

Mar. 5 Paid cash for an advertisement that appeared in the local newspaper, USD 150.

Apr. 10 Received USD 7,000 for converting a room over a garage into an office for a college professor. The professor purchased all of the materials for the job.

11 Paid gas and oil expenses for automobile, USD 900.

12 Miscellaneous business expenses were paid, USD 450.

15 Paid dividends of USD 2,000.

a. Prepare journal entries for these transactions.

b. Post the journal entries to T-accounts.

c. How profitable is this new venture? Should Jacobs stay in this business?

Annual report analysis B Refer to the Annual Report of The Limited, Inc. in the Annual Report Appendix. Perform horizontal and vertical analyses of the liabilities and stockholder's equity sections of the balance sheets for the two most recent years shown. Horizontal analysis involves showing the dollar amount and percentage increase or decrease of the latest year over the preceding year amounts. Vertical analysis involves showing the percentage of total liabilities and stockholder's equity that each account represents as of the balance sheet dates. Write comments on any important changes between the two years that are evidence of decisions made by management.

Annual report analysis C In The Home Depot's recent Annual Report, the following passages appear:

> The primary key to our success is our 39,000 employees who wear those orange aprons you see in our stores.
>
> Few great achievements—in business or in any aspect of life—are reached and sustained without the support and involvement of large numbers of people committed to shared values and goals they deem worthy. Indeed, one need look no further than the business section of the morning newspaper to read of how yet another "blue chip" American business, entrenched in and isolated by its own bureaucracy, has lost the support of its employees and customers...
>
> Frankly, the biggest difference between The Home Depot and our competitors is not the products on our shelves, it is our people and their ability to forge strong bonds of loyalty and trust with our customers...
>
> ...Contrary to conventional management wisdom, those at the top of organization charts are not the source of all wisdom. Many of our best ideas come from the people who work on the sales floor. We encourage our employees to challenge senior management directives if they feel strongly enough about their dissenting opinions...
>
> ...We want our people to be themselves and to be bold enough to apply their talents as individuals. Certainly, people can often perceive great risk acting this way. Thus, we go to great lengths to empower our employees to be mavericks, to express differences of opinion without fear of being fired or demoted...We do everything we can to make people feel challenged and inspired at work instead of being threatened and made to feel insecure. An organization can, after all, accomplish more when people work together instead of against each other.

Write answers to the following questions:

a. Do you think The Home Depot management regards its employees more as expenses or assets? Explain.

b. What does The Home Depot regard as its most valuable asset? Explain your answer.

c. Is The Home Depot permitted to list its human resources as assets on its balance sheet? Why or why not?

d. Could its philosophy regarding its employees be the major factor in its outstanding financial performance? Explain.

Ethics case – Writing experience D Refer to "An ethical perspective: Financial deals, Inc.". Write out the answers to the following questions:

a. What motivated Larry to go along with unethical and illegal actions? Explain.

b. What are Larry's options now? List each possibility.

c. What would you do if you were Larry? Describe in detail.

d. What do you think the real Larry did? Describe in detail.

Group project E In teams of two or three students, interview in person or by speakerphone a new staff member who has worked for a CPA firm for only one or two years. Seek information on the advantages and disadvantages of working for a CPA firm. Also, inquire about the nature of the work and the training programs offered by the firm for new employees. As a team, write a memorandum to the instructor summarizing the results of the interview. The heading of the memorandum should contain the date, to whom it is written, from whom, and the subject matter.

Group project F With one or two other students and using library resources, write a report on the life of Luca Pacioli, sometimes referred to as the father of accounting. Pacioli was a Franciscan monk who wrote a book on double-entry accounting in 1494. Be careful to cite sources and treat direct quotes properly. (If you do not know how to do this, ask your instructor.)

3.12.8 Using the Internet—A view of the real world

Visit the following website:

http://www.roberthalf.com

Click on Job Seekers. Read the information and write a memo to your instructor about your search and what you learned about certain jobs in accounting.

Visit the following website:

http://www.sec.gov

Investigate this site for anything of interest. Write a memo to your instructor about your search.

3.12.9 Answers to self-test

3.12.9.1 True-false

False. Only the last five steps are performed at the end of the period. The first three steps are performed throughout the accounting period.

True. The journal is the book of original entry. Any amounts appearing in a ledger account must have been posted from the journal.

False. The left side of any account is the debit side.

False. These accounts are all increased by credits.

True. Since dividends reduce stockholders' equity, the Dividends account is increased by debits.

False. An entire journal entry may not have been posted, or a debit or credit might have been posted to the wrong account.

3.12.9.2 Multiple-choice

c. An asset, Cash, is increased by a debit, and the Capital Stock account is increased by a credit.

b. Since the insurance covers more than the current accounting period, an asset is debited instead of an expense. The credit is to Cash.

a. The receipt of cash before services are performed creates a liability, Unearned Delivery Fees. To increase a liability, it is credited. Cash is debited to increase its balance.

b. Cash is increased by the debit, and Delivery Service Revenue is increased by the credit.

c. Dividends is increased by the debit, and Cash is decreased by the credit.

4 Adjustments for financial reporting

4.1 Learning objectives

- Describe the basic characteristics of the cash basis and the accrual basis of accounting.
- Identify the reasons why adjusting entries must be made.
- Identify the classes and types of adjusting entries.
- Prepare adjusting entries.
- Determine the effects of failing to prepare adjusting entries.
- Analyze and use the financial results and trend percentages.

4.2 A career as a tax specialist

While most students are aware that accountants frequently assist their clients with tax returns and other tax issues, few are aware of the large number of diverse and challenging careers available in the field of taxation. Nearly all public accounting firms, ranging from the "Big 4" international firms to the sole practitioner, generate a significant portion of their fees through tax compliance, planning and consulting. With over 155 million individual tax returns filed in the US every year, it is not surprising that many individuals and most businesses need assistance in dealing with the incredibly complex US and international tax laws. This complexity also provides tremendous tax planning opportunities. As a tax specialist, you will show individual clients how to reduce their taxes while simultaneously helping them make decisions about investing, buying a house, funding their children's education, and planning their retirement. For your business clients, careful planning and structuring of business investments and transactions can save millions of dollars in taxes. In fact, it is safe to say that very few significant business transactions take place without the careful guidance of a tax specialist.

A career in taxation is by no means limited to public accounting. Because there are so many types of taxes impacting so many aspects of our lives, tax specialists act as consultants in a large number of fields. For example, many companies offer deferred compensation or stock bonus plans to their executives. Nearly all companies provide some sort of pension or other retirement plan for their employees, as well as health care benefits. Significant tax savings can be generated for both the company and their employees if these benefits are structured correctly. In response to the amazing complexity of our tax laws, many schools offer masters degrees specializing in tax. Such a degree is not required to specialize in tax, but does offer students a significant advantage if they want to pursue a career in taxation. In a recent survey of 1,400 chief financial officers, the top two responses to the

question “which one of the following areas of specialization would you recommend to someone just beginning his or her career in accounting?” were personal financial planning and tax accounting. These responses reflect the indisputable fact that as the US demographic includes more wealthy, and older, Americans than ever before, professional tax guidance will be in ever-increasing demand.

The career paths outlined above do not nearly cover all of the many professional options available to tax specialists. For example, are you concerned that a traditional tax accounting job may be too tame for you? Special agents of the IRS routinely participate in criminal investigations and arrests, working closely with other federal law enforcement agencies. Are you interested in law? Accounting offers an ideal undergraduate degree for aspiring business and tax attorneys. If you think you may be interested in a career as a tax specialist, be sure to consult with one of your school’s tax professors about the many job opportunities this field provides.

Chapters 1 and 2 introduced the accounting process of analyzing, classifying, and summarizing business transactions into accounts. You learned how these transactions are entered into the journal and posted to the ledger accounts. You also know how to use the trial balance to test the equality of debits and credits in the journalizing and posting process. The purpose of the accounting process is to produce accurate financial statements so they may be used for making sound business decisions. At this point in your study of accounting, you are concentrating on three financial statements—the income statement, the statement of retained earnings, and the balance sheet. Detailed coverage of the statement of cash flows appears in Chapter 16.

When you began to analyze business transactions in Chapter 1, you saw that the evidence of the transaction is usually a source document. It is any written or printed evidence that describes the essential facts of a business transaction. Examples are receipts for cash paid or received, checks written or received, bills sent to customers, or bills received from suppliers. The giving, receiving, or creating of source documents triggered the journal entries made in Chapter 2.

The journal entries we discuss in this chapter are *adjusting entries*. The arrival of the end of the accounting period triggers adjusting entries. Accountants use adjusting entries to bring accounts to their proper balances before preparing financial statements. In this chapter, you learn the difference between the cash basis and accrual basis of accounting. Then you learn about the classes and types of adjusting entries and how to prepare them.

4.3 Cash versus accrual basis accounting

Professionals such as physicians and lawyers and some relatively small businesses may account for their revenues and expenses on a cash basis. The **cash basis of accounting** recognizes revenues

when cash is received and recognizes expenses when cash is paid out. For example, under the cash basis, a company would treat services rendered to clients in 2010 for which the company collected cash in 2011 as 2011 revenues. Similarly, under the cash basis, a company would treat expenses incurred in 2010 for which the company disbursed cash in 2011 as 2011 expenses. Under the "pure" cash basis, even the purchase of a building would be debited to an expense. However, under the "modified" cash basis, the purchase of long-lived assets (such as a building) would be debited to an asset and depreciated (gradually charged to expense) over its useful life. Normally the "modified" cash basis is used by those few individuals and small businesses that use the cash basis.

	Cash Basis	**Accrual Basis**
Revenues are recognized	As cash is received	As earned (goods are delivered or services are performed)
Expenses are recognized	As cash is paid	As incurred to produce revenues

Exhibit 14: Cash basis and accrual basis of accounting compared

Because the cash basis of accounting does not match expenses incurred and revenues earned, it is generally considered theoretically unacceptable. The cash basis is acceptable in practice only under those circumstances when it approximates the results that a company could obtain under the accrual basis of accounting. Companies using the cash basis do not have to prepare any adjusting entries unless they discover they have made a mistake in preparing an entry during the accounting period. Under certain circumstances, companies may use the cash basis for income tax purposes.

Throughout the text we use the accrual basis of accounting, which matches expenses incurred and revenues earned, because most companies use the accrual basis. The **accrual basis of accounting** recognizes revenues when sales are made or services are performed, regardless of when cash is received. Expenses are recognized as incurred, whether or not cash has been paid out. For instance, assume a company performs services for a customer on account. Although the company has received no cash, the revenue is recorded at the time the company performs the service. Later, when the company receives the cash, no revenue is recorded because the company has already recorded the revenue. Under the accrual basis, adjusting entries are needed to bring the accounts up to date for unrecorded economic activity that has taken place. In Exhibit 14, shown below, we show when revenues and expenses are recognized under the cash basis and under the accrual basis.

4.4 The need for adjusting entries

The income statement of a business reports all revenues earned and all expenses incurred to generate those revenues during a given period. An income statement that does not report all revenues and expenses is incomplete, inaccurate, and possibly misleading. Similarly, a balance sheet that does not report all of an entity's assets, liabilities, and stockholders' equity at a specific time may be misleading. Each adjusting entry has a dual purpose: (1) to make the income statement report the proper revenue or expense and (2) to make the balance sheet report the proper asset or liability. Thus, every adjusting entry affects at least one income statement account and one balance sheet account.

January	30
February	9
March	16
April	8
May	18
June	49
July	8
August	14
September	42
October	17
November	13
Subtotal	**224**
December	376
Total Companies	**600**
Source' American Institute of Certified Public Accountants	*Accounting Trends & Techniques* (New York' AICPA, 2004) p39

Exhibit 15: Summary-fiscal year ending by month

Since those interested in the activities of a business need timely information, companies must prepare financial statements periodically. To prepare such statements, the accountant divides an entity's life into time periods. These time periods are usually equal in length and are called *accounting periods*. An **accounting period** may be one month, one quarter, or one year. An **accounting year**, or fiscal year, is an accounting period of one year. A **fiscal year** is any 12 consecutive months. The fiscal year may or may not coincide with the **calendar year**, which ends on December 31. As we show in Exhibit 15, 63 per cent of the companies surveyed in 2004 had fiscal years that coincide with the calendar year. In 2008, the comparable figure for publicly-traded companies in the US was 65 per cent. Companies in certain industries often have a fiscal year that differs from the calendar year. For instance many retail stores end their fiscal year on January 31 to avoid closing their books during their peak sales period. Other companies select a fiscal year ending at a time when inventories and business activity are lowest.

Periodic reporting and the matching principle necessitate the preparation of *adjusting entries*. **Adjusting entries** are journal entries made at the end of an accounting period or at any time

financial statements are to be prepared to bring about a proper *matching* of revenues and expenses. The **matching principle** requires that expenses incurred in producing revenues be deducted from the revenues they generated during the accounting period. The matching principle is one of the underlying principles of accounting. This matching of expenses and revenues is necessary for the income statement to present an accurate picture of the profitability of a business. Adjusting entries reflect unrecorded economic activity that has taken place but has not yet been recorded. Why has the company not recorded this activity by the end of the period? One reason is that it is more convenient and economical to wait until the end of the period to record the activity. A second reason is that no source document concerning that activity has yet come to the accountant's attention.

Adjusting entries bring the amounts in the general ledger accounts to their proper balances before the company prepares its financial statements. That is, adjusting entries convert the amounts that are actually in the general ledger accounts to the amounts that should be in the general ledger accounts for proper financial reporting. To make this conversion, the accountants analyze the accounts to determine which need adjustment. For example, assume a company purchased a three-year insurance policy costing USD 600 at the beginning of the year and debited USD 600 to Prepaid Insurance. At year-end, the company should remove USD 200 of the cost from the asset and record it as an expense. Failure to do so misstates assets and net income on the financial statements.

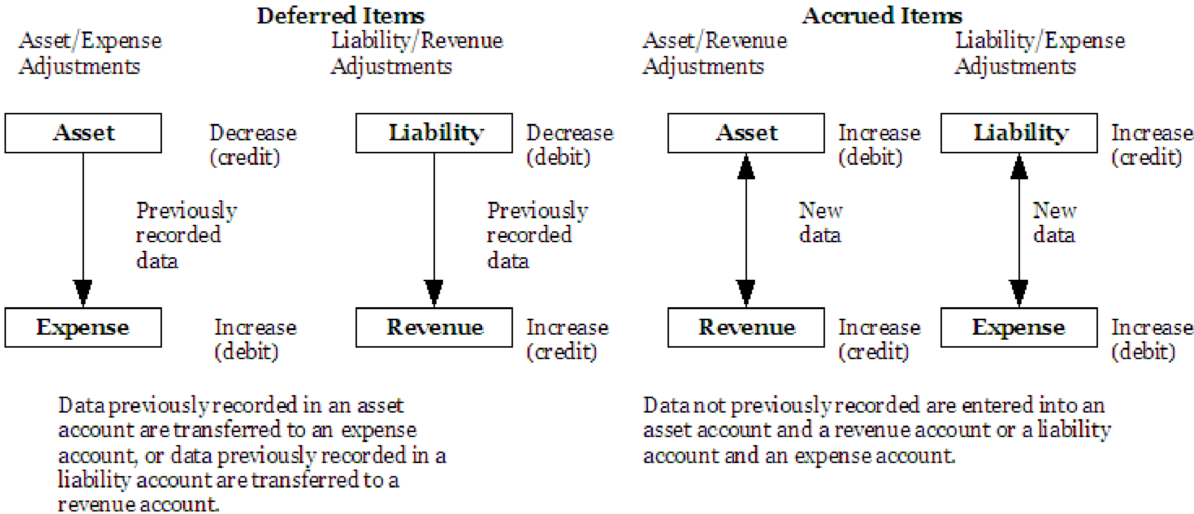


Exhibit 16: Two classes and four types of adjusting entries

Companies continuously receive benefits from many assets such as prepaid expenses (e.g. prepaid insurance and prepaid rent). Thus, an entry could be made daily to record the expense incurred. Typically, firms do not make the entry until financial statements are to be prepared. Therefore, if monthly financial statements are prepared, monthly adjusting entries are required. By custom, and in some instances by law, businesses report to their owners at least annually. Accordingly, adjusting entries are required at least once a year. Remember, however, that the entry transferring an amount from an asset account to an expense account should transfer only the asset cost that has expired.

An accounting perspective: Uses of technology

Eventually, computers will probably enter adjusting entries continuously on a real-time basis so that up-to-date financial statements can be printed at any time without prior notice. Computers will be fed the facts concerning activities that would normally result in adjusting entries and instructed to seek any necessary information from their own databases or those of other computers to continually adjust the accounts.

4.5 Classes and types of adjusting entries

Adjusting entries fall into two broad classes: deferred (meaning to postpone or delay) items and accrued (meaning to grow or accumulate) items. **Deferred items** consist of adjusting entries involving data previously recorded in accounts. These entries involve the transfer of data already recorded in asset and liability accounts to expense and revenue accounts, respectively. **Accrued items** consist of adjusting entries relating to activity on which no data have been previously recorded in the accounts. These entries involve the initial, or first, recording of assets and liabilities and the related revenues and expenses (see Exhibit 16).

Deferred items consist of two types of adjusting entries: asset/expense adjustments and liability/revenue adjustments. For example, prepaid insurance and prepaid rent are assets until they are used up; then they become expenses. Also, unearned revenue is a liability until the company renders the service; then the unearned revenue becomes earned revenue.

Accrued items consist of two types of adjusting entries: asset/revenue adjustments and liability/expense adjustments. For example, assume a company performs a service for a customer but has not yet billed the customer. The accountant records this transaction as an asset in the form of a receivable and as revenue because the company has earned a revenue. Also, assume a company owes

its employees salaries not yet paid. The accountant records this transaction as a liability and an expense because the company has incurred an expense.

MICROTRAIN COMPANY
Trial Balance
2010 December 31

Acct. No.	Account Title	Debits	Credits
100	Cash	$ 8,250	
103	Accounts Receivable	5,200	
107	Supplies on Hand	1,400	
108	Prepaid Insurance	2,400	
112	Prepaid Rent	1,200	
150	Trucks	40,000	
200	Accounts Payable		$ 730
216	Unearned Service Fees		4,500
300	Capital Stock		50,000
320	Dividends	3,000	
400	Service Revenue		10,700
505	Advertising Expense	50	
506	Gas and Oil Expense	680	
507	Salaries Expense	3,600	
511	Utilities Expense	150	$65,930
		$65,930	

Exhibit 17: Trial balance

In this chapter, we illustrate each of the four types of adjusting entries: asset/expense, liability/revenue, asset/revenue, and liability/expense. Look at Exhibit 17, the trial balance of the MicroTrain Company at 2010 December 31. As you can see, MicroTrain must adjust several accounts before it can prepare accurate financial statements. The adjustments for these accounts involve data already recorded in the company's accounts.

In making adjustments for MicroTrain Company, we must add several accounts to the company's chart of accounts shown in Chapter 2. These new accounts are:

Type of Account	Acct.	Account Title	Description
Asset	No.	Interest Receivable	The amount of interest earned but not
Contra asset*	121	Accumulated	yet received. The total depreciation
Liability Revenue	151	Depreciation—Trucks	expense taken on trucks since the
Expenses	206	Salaries Payable	acquisition date. The balance of this
	418	Interest Revenue	account is deducted from that of Trucks
	512	Insurance Expense	on the balance sheet.
	515	Rent Expense	The amount of salaries earned
	518	Supplies Expense	by employees but not yet paid
	521	Depreciation Expense—	by the company.

	Trucks	The amount of interest earned in the current period. The cost of insurance incurred in the current period. The cost of rent incurred in the current period. The cost of supplies used in the current period. The portion of the cost of the trucks assigned to expense during the current period.

*Accountants deduct the balance of a contra asset from the balance of the related reasons for using a contra asset account later in the chapter. asset account on the balance sheet. We explain the

Now you are ready to follow as MicroTrain Company makes its adjustments for deferred items. If you find the process confusing, review the beginning of this chapter so you clearly understand the purpose of adjusting entries.

An accounting perspective: Uses of technology

It is difficult to name a publicly owned company that does not provide an extensive website. In fact, websites have become an important link between companies and their investors. Most websites will have a link titled investor relations or merely company information which provides a wealth of financial information ranging from audited financial statements to charts of the company's stock prices. As an example, check out the Gap, Incs website at:

http://www.gapinc.com

Browse the Gap site and see for yourself the comprehensiveness of the financial information available there.

4.6 Adjustments for deferred items

This section discusses the two types of adjustments for deferred items: asset/expense adjustments and liability/revenue adjustments. In the asset/expense group, you learn how to prepare adjusting entries for prepaid expenses and depreciation. In the liability/revenue group, you learn how to prepare adjusting entries for unearned revenues.

MicroTrain Company must make several asset/expense adjustments for prepaid expenses. A **prepaid expense** is an asset awaiting assignment to expense, such as prepaid insurance, prepaid rent, and supplies on hand. Note that the nature of these three adjustments is the same.

Prepaid insurance When a company pays an insurance policy premium in advance, the purchase creates the asset, *prepaid insurance*. This advance payment is an asset because the company will

receive insurance coverage in the future. With the passage of time, however, the asset gradually expires. The portion that has expired becomes an expense. To illustrate this point, recall that in Chapter 2, MicroTrain Company purchased for cash an insurance policy on its trucks for the period 2010 December 1, to 2011 November 30. The journal entry made on 2010 December 1, to record the purchase of the policy was:

2010				
Dec.	1	Prepaid Insurance	2,400	
		Cash		2400
		Purchased truck insurance to cover a one-year period.		

The two accounts relating to insurance are Prepaid Insurance (an asset) and Insurance Expense (an expense). After posting this entry, the Prepaid Insurance account has a USD 2,400 debit balance on 2010 December 1. The Insurance Expense account has a zero balance on 2010 December 1, because no time has elapsed to use any of the policy's benefits.

(Dr.)	**Prepaid Insurance**	*(Cr)*	*(Dr.)*	**Insurance Expense**	*(Cr)*
2010			2010		
Dec. 1			Dec. 1		
Bal.	2,400		Bal.	-0-	

By 2010 December 31, one month of the year covered by the policy has expired. Therefore, part of the **service potential** (or benefit obtained from the asset) has expired. The asset now provides less future services or benefits than when the company acquired it. We recognize this reduction by treating the cost of the services received from the asset as an expense. For the MicroTrain Company example, the service received was one month of insurance coverage. Since the policy provides the same services for every month of its one-year life, we assign an equal amount (USD 200) of cost to each month. Thus, MicroTrain charges $^1/_{12}$ of the annual premium to Insurance Expense on 2010 December 31. The adjusting journal entry is:

2010					
Dec.	31	Insurance Expense	200		Adjustment
		Prepaid Insurance		200	1—Insurance

		To record insurance expense for December.				

After posting these two journal entries, the accounts in T-account format appear as follows:

	(Dr.) Prepaid Insurance	(Cr)
	2010 Dec. 1 Purchased on account 2,400	2010 Dec. 31 Adjustment 1 200
		Decreased by $200
	Bal. After adjustment 2,200	

	(Dr.) Insurance Expense	(Cr.)
Increased by $200	2010 31 Adjustment 1 200	

In practice, accountants do not use T-accounts. Instead, they use three-column ledger accounts that have the advantage of showing a balance after each transaction. After posting the preceding two entries, the three-column ledger accounts appear as follows:

Prepaid Insurance

Date		Explanation	Post Ref.	Debit	Credit	Balance
Dec. 2010	1	Purchased on Account	G1	2400		2400 Dr.
	31	Adjustment	G3*		200	2200 Dr.

Insurance Expense

Date		Explanation	Post Ref.	Debit	Credit	Balance
Dec. 2010	31	Adjustment	G3*	200		200 Dr.

*Assumed page number

Before this adjusting entry was made, the entire USD 2,400 insurance payment made on 2010 December 1, was a prepaid expense for 12 months of protection. So on 2010 December 31, one month of protection had passed, and an adjusting entry transferred USD 200 of the USD 2,400 (USD 2,400/12 = USD 200) to Insurance Expense. On the income statement for the year ended 2010 December 31, MicroTrain reports one month of insurance expense, USD 200, as one of the expenses it incurred in generating that year's revenues. It reports the remaining amount of the prepaid expense, USD 2,200, as an asset on the balance sheet. The USD 2,200 prepaid expense represents 11 months of insurance protection that remains as a future benefit.

Prepaid rent Prepaid rent is another example of the gradual consumption of a previously recorded asset. Assume a company pays rent in advance to cover more than one accounting period. On

the date it pays the rent, the company debits the prepayment to the Prepaid Rent account (an asset account). The company has not yet received benefits resulting from this expenditure. Thus, the expenditure creates an asset.

We measure rent expense similarly to insurance expense. Generally, the rental contract specifies the amount of rent per unit of time. If the prepayment covers a three-month rental, we charge one-third of this rental to each month. Notice that the amount charged is the same each month even though some months have more days than other months.

For example, MicroTrain Company paid USD 1,200 rent in advance on 2010 December 28, to cover a three-month period beginning on that date. The journal entry would be:

2010				
Dec.	1	Prepaid Rent	1,200	
		Cash		1,200
		Paid three months' rent on a building.		

The two accounts relating to rent are Prepaid Rent (an asset) and Rent Expense. After this entry is posted, the Prepaid Rent account has a USD 1,200 balance and the Rent Expense account has a zero balance because no part of the rent period has yet elapsed.

(Dr.)	**Prepaid Rent**	*(Cr)*	*(Dr.)*	**Rent Expense**	*(Cr)*
2010			2010		
Dec. 1			Dec. 1		
Bal. Cash Paid	1,200		Bal.	-0-	

On 2010 December 31, MicroTrain must prepare an adjusting entry. Since one third of the period covered by the prepaid rent has elapsed, it charges one-third of the USD 1,200 of prepaid rent to expense. The required adjusting entry is:

	2010 Dec.				
Adjustment		31	Rent Expense	400	
2—Rent			Prepaid Rent To record rent expense for December		400

After posting this adjusting entry, the T-accounts appear as follows:

	(Dr.)	Prepaid Rent		(Cr)	
	2010 Dec. 1 Cash Paid	1,200	2010 Dec. 31 Adjustment 2	400	Decreased
	Bal. after adjustment	800			by $400
	(Dr.)	**Rent Expense**		(Cr)	
Increased by $400	2010 Dec. 31 Adjustment 2	400			

The USD 400 rent expense appears in the income statement for the year ended 2010 December 31. MicroTrain reports the remaining USD 800 of prepaid rent as an asset in the balance sheet on 2010 December 31. Thus, the adjusting entries have accomplished their purpose of maintaining the accuracy of the financial statements.

Supplies on hand Almost every business uses supplies in its operations. It may classify supplies simply as supplies (to include all types of supplies), or more specifically as office supplies (paper, stationery, floppy diskettes, pencils), selling supplies (gummed tape, string, paper bags, cartons, wrapping paper), or training supplies (transparencies, training manuals). Frequently, companies buy supplies in bulk. These supplies are an asset until the company uses them. This asset may be called *supplies on hand* or *supplies inventory*. Even though these terms indicate a prepaid expense, the firm does not use *prepaid* in the asset's title.

On 2010 December 4, MicroTrain Company purchased supplies for USD 1,400 and recorded the transaction as follows:

2010				
Dec.	4	Supplies on Hand	1,400	
		Cash		1,400
		To record the purchase of supplies for future use.		

MicroTrain's two accounts relating to supplies are Supplies on Hand (an asset) and Supplies Expense. After this entry is posted, the Supplies on Hand account shows a debit balance of USD 1,400 and the Supplies Expense account has a zero balance as shown in the following T-accounts:

(Dr.)	**Supplies On Hand**	(Cr.)
2010 Dec. 4		
Bal. Cash Paid	1,400	

(Dr.)	**Supplies Expense**	(Cr.)
2010 Dec. 4		
Bal.	-0-	

An actual physical inventory (a count of the supplies on hand) at the end of the month showed only USD 900 of supplies on hand. Thus, the company must have used USD 500 of supplies in December.

An adjusting journal entry brings the two accounts pertaining to supplies to their proper balances. The adjusting entry recognizes the reduction in the asset (Supplies on Hand) and the recording of an expense (Supplies Expense) by transferring USD 500 from the asset to the expense. According to the physical inventory, the asset balance should be USD 900 and the expense balance, USD 500. So MicroTrain makes the following adjusting entry:

2010					
Dec.	31	Supplies Expense	500		Adjustment
		Supplies on Hand		500	3—Supplies
		To record supplies used during December.			

After posting this adjusting entry, the T-accounts appear as follows:

	(Dr.)	Supplies on Hand	(Cr)	
	2010 Dec. 4 Cash Paid 1,400		2010 Dec. 31 Adjustment 3 500	Decreased by $500
	Bal. after 900 adjustment			

	(Dr.)	Supplies Expense	(Cr.)
Increased by $500	2010 Dec 31 Adjustment 3	500	

The entry to record the use of supplies could be made when the supplies are issued from the storeroom. However, such careful accounting for small items each time they are issued is usually too costly a procedure.

Accountants make adjusting entries for supplies on hand, like for any other prepaid expense, before preparing financial statements. Supplies expense appears in the income statement. Supplies on hand is an asset in the balance sheet.

Sometimes companies buy assets relating to insurance, rent, and supplies knowing that they will use them up before the end of the current accounting period (usually one month or one year). If so, an expense account is usually debited at the time of purchase rather than debiting an asset account. This procedure avoids having to make an adjusting entry at the end of the accounting period. Sometimes, too, a company debits an expense even though the asset will benefit more than the current period. Then, at the end of the accounting period, the firm's adjusting entry transfers some of the cost from the expense to the asset. For instance, assume that on January 1, a company paid USD 1,200 rent to cover a three-year period and debited the USD 1,200 to Rent Expense. At the end of the year, it transfers USD 800 from Rent Expense to Prepaid Rent. To simplify our approach, we will consistently debit the asset when the asset will benefit more than the current accounting period.

Depreciation Just as prepaid insurance and prepaid rent indicate a gradual using up of a previously recorded asset, so does depreciation. However, the overall time involved in using up a depreciable asset (such as a building) is much longer and less definite than for prepaid expenses. Also, a prepaid expense generally involves a fairly small amount of money. Depreciable assets, however, usually involve larger sums of money.

A **depreciable asset** is a manufactured asset such as a building, machine, vehicle, or piece of equipment that provides service to a business. In time, these assets lose their utility because of (1) wear and tear from use or (2) obsolescence due to technological change. Since companies gradually use up these assets over time, they record depreciation expense on them. **Depreciation expense** is the amount of asset cost assigned as an expense to a particular period. The process of recording depreciation expense is called **depreciation accounting.** The three factors involved in computing depreciation expense are:

- **Asset cost**. The asset cost is the amount that a company paid to purchase the depreciable asset.
- **Estimated residual value.** The **estimated residual value (scrap value)** is the amount that the company can probably sell the asset for at the end of its estimated useful life.
- **Estimated useful life.** The **estimated useful life** of an asset is the estimated time that a company can use the asset. Useful life is an estimate, not an exact measurement, that a company must make in advance. However, sometimes the useful life is determined by company policy (e.g. keep a fleet of automobiles for three years).

Accountants use different methods for recording depreciation. The method illustrated here is the *straight-line method*. We discuss other depreciation methods in Chapter 10. Straight-line depreciation assigns the same amount of depreciation expense to each accounting period over the life of the asset. The **depreciation formula (straight-line)** to compute straight-line depreciation for a one-year period is:

$$\text{Annual depreciation} = \frac{\text{Asset cost} - \text{Estimated residual value}}{\text{Estimated years of useful life}}$$

To illustrate the use of this formula, recall that on December 1, MicroTrain Company purchased four small trucks at a cost of USD 40,000. The journal entry was:

2010				
Dec.	1	Trucks	40,000	
		Cash		40,000
		To record the purchase of four trucks.		

The estimated residual value for each truck was USD 1,000, so MicroTrain estimated the total residual value for all four trucks at USD 4,000. The company estimated the useful life of each truck to be four years. Using the straight-line depreciation formula, MicroTrain calculated the annual depreciation on the trucks as follows:

$$\text{Annual depreciation} = \frac{\text{USD } 40{,}000 - \text{USD } 4{,}000}{4 \text{ years}} = \text{USD } 9{,}000$$

The amount of depreciation expense for one month would be $^1/_{12}$ of the annual amount. Thus, depreciation expense for December is USD 9,000 ÷ 12 = USD 750.

The difference between an asset's cost and its estimated residual value is an asset's **depreciable amount.** To satisfy the matching principle, the firm must allocate the depreciable amount as an expense to the various periods in the asset's useful life. It does this by debiting the amount of depreciation for a period to a depreciation expense account and crediting the amount to an accumulated depreciation account. MicroTrain's depreciation on its delivery trucks for December is USD 750. The company records the depreciation as follows:

2010					
Dec.	31	Depreciation Expense – Trucks	750		
		Accumulated Depreciation - Trucks		750	Adjusted 4- Depreciation
		To record depreciation expense for December.			

After posting the adjusting entry, the T-accounts appear as follow:

(Dr.) **Depreciation Expense—Trucks** *(Cr)*

	(Dr.)	(Cr.)
Increased by $750	2010 Dec 31 Adjustment 4 750	

(Dr.) **Accumulated Depreciation—Trucks** *(Cr.)*

(Dr.)	(Cr.)	
	2010 Dec. 31 Adjustment 4 750	Increased by $750 (book value of asset decreased)

MicroTrain reports depreciation expense in its income statement. And it reports accumulated depreciation in the balance sheet as a deduction from the related asset.

The **accumulated depreciation account** is a contra asset account that shows the total of all depreciation recorded on the asset *from the date of acquisition up through the balance sheet date.* A **contra asset account** is a deduction from the asset to which it relates in the balance sheet. The purpose of a contra asset account is to reduce the original cost of the asset down to its remaining undepreciated cost or book value. The *accumulated depreciation account* does not represent cash that is being set aside to replace the worn out asset. The *undepreciated cost of the asset* is the debit balance in the asset account (original cost) minus the credit balance in the accumulated depreciation contra account. Accountants also refer to an asset's cost less accumulated depreciation as the **book value** (or net book value) of the asset. Thus, book value is the cost not yet allocated to an expense. In the previous example, the book value of the equipment after the first month is:

Cost	USD 40,000
Less: Accumulated depreciation	750
Book value (or cost not yet allocated to as an expense)	39,250

MicroTrain credits the depreciation amount to an accumulated depreciation account, which is a contra asset, rather than directly to the asset account. Companies use contra accounts when they want to show statement readers the original amount of the account to which the contra account relates. For instance, for the asset Trucks, it is useful to know both the original cost of the asset and the total accumulated depreciation amount recorded on the asset. Therefore, the asset account shows the original cost. The contra account, Accumulated Depreciation—Trucks, shows the total amount of recorded depreciation from the date of acquisition. By having both original cost and the accumulated depreciation amounts, a user can estimate the approximate percentage of the benefits embodied in the asset that the company has consumed. For instance, assume the accumulated depreciation amount is about three-fourths the cost of the asset. Then, the benefits would be approximately three-fourths consumed, and the company may have to replace the asset soon.

Thus, to provide more complete balance sheet information to users of financial statements, companies show both the original acquisition cost and accumulated depreciation. In the preceding example for adjustment 4, the balance sheet at 2010 December 31, would show the asset and contra asset as follows:

Assets	
Trucks	USD 40,000
Less: Accumulated depreciation	750
	USD 39,250

As you may expect, the accumulated depreciation account balance increases each period by the amount of depreciation expense recorded until the remaining book value of the asset equals the estimated residual value.

A liability/revenue adjustment involving unearned revenues covers situations in which a customer has transferred assets, usually cash, to the selling company before the receipt of merchandise or services. Receiving assets before they are earned creates a liability called **unearned revenue.** The firm debits such receipts to the asset account Cash and credits a liability account. The liability account credited may be Unearned Fees, Revenue Received in Advance, Advances by Customers, or some similar title. The seller must either provide the services or return the customer's money. By performing the services, the company earns revenue and cancels the liability.

Companies receive advance payments for many items, such as training services, delivery services, tickets, and magazine or newspaper subscriptions. Although we illustrate and discuss only advanced receipt of training fees, firms treat the other items similarly.

Unearned service fees On December 7, MicroTrain Company received USD 4,500 from a customer in payment for future training services. The firm recorded the following journal entry:

2010				
Dec.	7	Cash	4,500	
		Unearned Service Fees		4,500
		To record the receipt of cash from a customer in payment for future training services.		

The two T-accounts relating to training fees are Unearned Service Fees (a liability) and Service Revenue. These accounts appear as follows on 2010 December 31 (before adjustment):

(Dr.)	Unearned Service Fees (Cr.)
	2010 Dec. 7 Cash received in advance 4,500

(Dr.)	Service Revenue (Cr.)
	2010 Bal. before adjustment 10,700*

*The $10,700 balance came from transactions discussed in Chapter 2.

The balance in the Unearned Service Fees liability account established when MicroTrain received the cash will be converted into revenue as the company performs the training services. Before MicroTrain prepares its financial statements, it must make an adjusting entry to transfer the amount of the services performed by the company from a liability account to a revenue account. If we assume that

MicroTrain earned one-third of the USD 4,500 in the Unearned Service Fees account by December 31, then the company transfers USD 1,500 to the Service Revenue account as follows:

	2010 Dec.				
Adjustment 5— Revenue earned		31	Unearned Service Fees Service Revenue To transfer a portion of training fees from the liability account to the revenue account.	1,500	1,500

After posting the adjusting entry, the T-accounts would appear as follows:

	(Dr.)	Unearned Service Fees		(Cr.)	
Decreased by $1,500	2010		2010		
	2010 Dec. 31	Adjustment 5 1,500	Dec. 7 Cash received		
			in advance	4,500	
			Bal. after adjustment	3,000	
	(Dr.)	Service Revenue		(Cr.)	
			2010 Bal. before adjustment Dec. 31 Adjustment 5	10,700 1,500	Increased — by $1,500
			Bal. after adjustment	12,200	

MicroTrain reports the service revenue in its income statement for 2010. The company reports the USD 3,000 balance in the Unearned Service Fees account as a liability in the balance sheet. In 2011, the company will likely earn the USD 3,000 and transfer it to a revenue account.

If MicroTrain does not perform the training services, the company would have to refund the money to the training service customers. For instance, assume that MicroTrain could not perform the remaining USD 3,000 of training services and would have to refund the money. Then, the company would make the following entry:

Unearned Service Fees	3,000	
Cash		3,000
To record the refund of unearned training fees.		

Thus, the company must either perform the training services or refund the fees. This fact should strengthen your understanding that unearned service fees and similar items are liabilities.

Accountants make the adjusting entries for deferred items for data already recorded in a company's asset and liability accounts. They also make adjusting entries for accrued items, which we discuss in the next section, for business data not yet recorded in the accounting records.

An accounting perspective: Business insight

According to the National Association of Colleges and Employers, the average offer to an accounting major in 2009 was USD 48,334 and tends to increase each year. According to recent surveys, the market for accounting graduates remains brisk. Often, one of the chief problems for graduates is how to handle multiple job offers. As a result of the low unemployment rate, employers—especially small accounting firms with limited recruiting budgets—are doing whatever they can to grab qualified candidates.

4.7 Adjustments for accrued items

Accrued items require two types of adjusting entries: asset/revenue adjustments and liability/expense adjustments. The first group—asset/revenue adjustments—involves accrued assets; the second group—liability/expense adjustments—involves accrued liabilities.

Accrued assets are assets, such as interest receivable or accounts receivable, that have not been recorded by the end of an accounting period. These assets represent rights to receive future payments that are not due at the balance sheet date. To present an accurate picture of the affairs of the business on the balance sheet, firms recognize these rights at the end of an accounting period by preparing an adjusting entry to correct the account balances. To indicate the dual nature of these adjustments, they record a related revenue in addition to the asset. We also call these adjustments **accrued revenues** because the revenues must be recorded.

Interest revenue Savings accounts literally earn interest moment by moment. Rarely is payment of the interest made on the last day of the accounting period. Thus, the accounting records normally do not show the interest revenue earned (but not yet received), which affects the total assets owned by the investor, unless the company makes an adjusting entry. The adjusting entry at the end of the accounting period debits a receivable account (an asset) and credits a revenue account to record the interest earned and the asset owned.

For example, assume MicroTrain Company has some money in a savings account. On 2010 December 31, the money on deposit has earned one month's interest of USD 600, although the

company has not received the interest. An entry must show the amount of interest earned by 2010 December 31, as well as the amount of the asset, interest receivable (the right to receive this interest). The entry to record the accrual of revenue is:

Adjustment 6—Interest revenue accrued	2010				
	Dec.	31	Interest Receivable	600	
			Interest Revenue		600
			To record one month's interest revenue.		

The T-accounts relating to interest would appear as follows:

	(Dr.) Interest Receivable	*(Cr.)*	
Increased by $600	2010 Dec 31 Adjustment 6 600		

	(Dr.) Interest	Revenue *(Cr.)*	
		2010 Dec. 31 Adjustment 6 600.	Increased by $600

MicroTrain reports the USD 600 debit balance in Interest Receivable as an asset in the 2010 December 31, balance sheet. This asset accumulates gradually with the passage of time. The USD 600 credit balance in Interest Revenue is the interest earned during the month. Recall that in recording revenue under accrual basis accounting, it does not matter whether the company collects the actual cash during the year or not. It reports the interest revenue earned during the accounting period in the income statement.

Unbilled training fees A company may perform services for customers in one accounting period while it bills for the services in a different accounting period.

MicroTrain Company performed USD 1,000 of training services on account for a client at the end of December. Since it takes time to do the paper work, MicroTrain will bill the client for the services in January. The necessary adjusting journal entry at 2010 December 31, is:

Adjustment 7—Unbilled	2010				
	Dec.	31	Accounts Receivable (or Service Fees Receivable)	1,000	
			Service Revenue		1,000
			To record unbilled training services performed in December.		

After posting the adjusting entry, the T-accounts appear as follows:

(Dr.)	Accounts Receivable	(Cr.)
2010		
Previous bal.	5,200*	
Dec. 31 Adjustment 7	1,000*_	
Bal. after adjustment	6,200	

*This previous balance came from transactions discussed in Chapter 2.

(Dr.)	Service	Revenue	(Cr.)
		2010	
		Bal. before adjustment	10,700
		Dec. 31 Adjustment 5—previously unearned revenue.	1,500
		Dec. 31 Adjustment 7	1,000
		Bal. after both adjustments	13200

The service revenue appears in the income statement; the asset, accounts receivable, appears in the balance sheet.

Accrued liabilities are liabilities not yet recorded at the end of an accounting period. They represent obligations to make payments not legally due at the balance sheet date, such as employee salaries. At the end of the accounting period, the company recognizes these obligations by preparing an adjusting entry including both a liability and an expense. For this reason, we also call these obligations **accrued expenses**.

Salaries The recording of the payment of employee salaries usually involves a debit to an expense account and a credit to Cash. Unless a company pays salaries on the last day of the accounting period for a pay period ending on that date, it must make an adjusting entry to record any salaries incurred but not yet paid.

MicroTrain Company paid USD 3,600 of salaries on Friday, 2010 December 28, to cover the first four weeks of December. The entry made at that time was:

2010				
Dec.	28	Salaries Expense	3,600	
		Cash		3,600
		Paid training employee salaries for the first four weeks of December.		

Assuming that the last day of December 2010 falls on a Monday, this expense account does not show salaries earned by employees for the last day of the month. Nor does any account show the employer's obligation to pay these salaries. The T-accounts pertaining to salaries appear as follows before adjustment:

(Dr.)	**Salaries Expense**	*(Cr)*	*(Dr.)*	**Salaries Payable**	*(Cr)*
2010 Dec. 28	3,600			2010 Dec. 28 Bal.	-0-

If salaries are USD 3,600 for four weeks, they are USD 900 per week. For a five-day workweek, daily salaries are USD 180. MicroTrain makes the following adjusting entry on December 31 to accrue salaries for one day:

2010				
Dec.	31	Salaries Expense	180	
		Salaries Payable		180
		To accrue one day's salaries that were earned but not paid.		

After adjustment, the two T-accounts involved appear as follows:

(Dr.)	**Salaries Expense**	*(Cr)*
2010		
Dec. 28 Bal.	3,600	
Dec. 31 Adjustment 8	180	
Bal. after adjustment	3,780	

(Dr.)	**Salaries Payable**	*(Cr.)*	
	2010 Dec. 31 Adjustment 8	180	Increased by $180

	Failure to Recognize	**Effect on Net Income**	**Effect on Balance Sheet Items**
1.	Consumption of the benefits of an asset (prepaid expense)	Overstates net income	Overstates assets Overstates retained earnings
2.	Earning of previously unearned revenues	Understates net income	Overstates liabilities Understates retained earnings
3.	Accrual of assets	Understates net income	Understates assets Understates retained earnings
4.	Accrual of liabilities	Overstates net income	Understates liabilities Overstates retained earnings

Exhibit 18: Effects of failure to recognize adjustments

The debit in the adjusting journal entry brings the month's salaries expense up to its correct USD 3,780 amount for income statement purposes. The credit to Salaries Payable records the USD 180 salary liability to employees. The balance sheet shows salaries payable as a liability.

Another example of a liability/expense adjustment is when a company incurs interest on a note payable. The debit would be to Interest Expense, and the credit would be to Interest Payable. We discuss this adjustment in Chapter 9.

4.8 Effects of failing to prepare adjusting entries

Failure to prepare proper adjusting entries causes net income and the balance sheet to be in error. You can see the effect of failing to record each of the major types of adjusting entries on net income and balance sheet items in Exhibit 18.

Using MicroTrain Company as an example, this chapter has discussed and illustrated many of the typical entries that companies must make at the end of an accounting period. Later chapters explain other examples of adjusting entries.

4.9 Analyzing and using the financial results—trend percentages

It is sometimes more informative to express all the dollar amounts as a percentage of one of the amounts in the base year rather than to look only at the dollar amount of the item in the financial statements. You can calculate **trend percentages** by dividing the amount for each year for an item, such as net income or net sales, by the amount of that item for the base year:

$$\text{Trend percentage} = \frac{\text{Current year amount}}{\text{Base year amount}}$$

To illustrate, assume that ShopaLot, a large retailer, and its subsidiaries reported the following net income for the years ended 2001 January 31, through 2010. The last column expresses these dollar amounts as a percentage of the 2001 amount. For instance, we would calculate the 125 per cent for 2002 as:

[(USD 1,609,000/USD 1,291,000)5 100]

	Dollar Amount of Net Income (millions)	**Percentage of 1991 Net Income**
1991	$1,291	100 %
1992	1.609	125
1993	1,995	155
1994	2,333	181
1995	2,681	208
1996	2,740	212
1997	3,056	237
1998	3,526	273
1999	4,430	343
2000	5,377	416
2001	6,295	488

Examining the trend percentages, we can see that ShopaLot's s net income has increased steadily over the 10-year period. The 2010 net income is over 4 times as much as the 2001 amount. This is the kind of performance that management and stockholders seek, but do not always get.

In the first three chapters of this text, you have learned most of the steps of the accounting process. Chapter 4 shows the final steps in the accounting cycle.

An accounting perspective: Uses of technology

The Internet sites of the Big-4 accounting firms are as follows:

Ernst & Young	http://www.ey.com
Deloitte Touche Tohmatsu	http://www.deloitte.com
KPMG	http://www.kpmg.com
PricewaterhouseCoopers	http://www.pwcglobal.com

You might want to visit these sites to learn more about a possible career in accounting.

4.10 Understanding the learning objectives

- The cash basis of accounting recognizes revenues when cash is received and recognizes expenses when cash is paid out.
- The accrual basis of accounting recognizes revenues when sales are made or services are performed, regardless of when cash is received; expenses are recognized as incurred, whether or not cash has been paid out.
- The accrual basis is more generally accepted than the cash basis because it provides a better matching of revenues and expenses.
- Adjusting entries convert the amounts that are actually in the accounts to the amounts that should be in the accounts for proper periodic financial reporting.
- Adjusting entries reflect unrecorded economic activity that has taken place but has not yet been recorded.
- Deferred items consist of adjusting entries involving data previously recorded in accounts. Adjusting entries in this class normally involve moving data from asset and liability accounts to expense and revenue accounts. The two types of adjustments within this deferred items class are asset/expense adjustments and liability/revenue adjustments.
- Accrued items consist of adjusting entries relating to activity on which no data have been previously recorded in the accounts. These entries involve the initial recording of assets and

liabilities and the related revenues and expenses. The two types of adjustments within this accrued items class are asset/revenue adjustments and liability/expense adjustments.

- This chapter illustrates entries for deferred items and accrued items.
- Failure to prepare adjusting entries causes net income and the balance sheet to be in error.
- For a particular item such as sales or net income, select a base year and express all dollar amounts in other years as a percentage of the base year dollar amount.

4.10.1 Demonstration problem

Among other items, the trial balance of Korman Company for 2010 December 31, includes the following account balances:

	Debits	Credits
Supplies on Hand	$ 6,000	
Prepaid Rent	25,200	
Buildings	200,000	
Accumulated Depreciation—Buildings		$33,250
Salaries Expense	124,000	
Unearned Delivery Fees		4,000

Some of the supplies represented by the USD 6,000 balance of the Supplies on Hand account have been consumed. An inventory count of the supplies actually on hand at December 31 totaled USD 2,400.

On May 1 of the current year, a rental payment of USD 25,200 was made for 12 months' rent; it was debited to Prepaid Rent.

The annual depreciation for the buildings is based on the cost shown in the Buildings account less an estimated residual value of USD 10,000. The estimated useful lives of the buildings are 40 years each.

The salaries expense of USD 124,000 does not include USD 6,000 of unpaid salaries earned since the last payday.

The company has earned one-fourth of the unearned delivery fees by December 31.

Delivery services of USD 600 were performed for a customer, but a bill has not yet been sent.

a. Prepare the adjusting journal entries for December 31, assuming adjusting entries are prepared only at year-end.

b. Based on the adjusted balance shown in the Accumulated Depreciation—Buildings account, how many years has Korman Company owned the building?

4.10.2 Solution to demonstration problems

KORMAN COMPANY General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	31	Supplies Expense		3600	
		Supplies on Hand			3600
		To record supplies expense ($6,000 - $2,400).			
	31	Rent Expense		16800	
		Prepaid Rent			16800
		To record rent expense ($25,200 X 8/12).			
	31	Depreciation Expense—Buildings		4750	
		Accumulated Depreciation—Buildings			4750
		To record depreciation ($200,000 - $10,000 / 40 years).			
	31	Salaries Expense		6000	
		Salaries Payable			6000
		To record accrued salaries.			
	31	Unearned Delivery Fees		1000	
		Service Revenue			1000
		To record delivery fees earned.			
	31	Accounts Receivable		600	
		Service Revenue			600
		To record delivery fees earned.			

Eight years; computed as:

$$\frac{\text{Total accumulated depreciation}}{\text{Annual depreciation expense}} = \frac{\text{USD } 33{,}250 + \text{USD } 4{,}750}{\text{USD } 4{,}750}$$

4.10.3 Key Terms

Accounting period A time period normally of one month, one quarter, or one year into which an entity's life is arbitrarily divided for financial reporting purposes.

Accounting year An accounting period of one year. The accounting year may or may not coincide with the calendar year.

Accrual basis of accounting Recognizes revenues when sales are made or services are performed, regardless of when cash is received. Recognizes expenses as incurred, whether or not cash has been paid out.

Accrued assets and liabilities Assets and liabilities that exist at the end of an accounting period but have not yet been recorded; they represent rights to receive, or obligations to make, payments that are not legally due at the balance sheet date. Examples are accrued fees receivable and salaries payable.

Accrued items Adjusting entries relating to activity on which no data have been previously recorded in the accounts. Also, see *accrued assets and liabilities*.

Accrued revenues and expenses Other names for accrued assets and liabilities.

Accumulated depreciation account A contra asset account that shows the total of all depreciation recorded on the asset up through the balance sheet date.

Adjusting entries Journal entries made at the end of an accounting period to bring about a proper matching of revenues and expenses; they reflect economic activity that has taken place but has not yet been recorded. Adjusting entries are made to bring the accounts to their proper balances before financial statements are prepared.

Book value For depreciable assets, book value equals cost less accumulated depreciation.

Calendar year The normal year, which ends on December 31.

Cash basis of accounting Recognizes revenues when cash is received and recognizes expenses when cash is paid out.

Contra asset account An account shown as a deduction from the asset to which it relates in the balance sheet; used to reduce the original cost of the asset down to its remaining undepreciated cost or book value.

Deferred items Adjusting entries involving data previously recorded in the accounts. Data are transferred from asset and liability accounts to expense and revenue accounts. Examples are prepaid expenses, depreciation, and unearned revenues.

Depreciable amount The difference between an asset's cost and its estimated residual value.

Depreciable asset A manufactured asset such as a building, machine, vehicle, or equipment on which depreciation expense is recorded.

Depreciation accounting The process of recording depreciation expense.

Depreciation expense The amount of asset cost assigned as an expense to a particular time period.

Depreciation formula (straight-line):

Estimated residual value (scrap value) The amount that the company can probably sell the asset for at the end of its estimated useful life.

Estimated useful life The estimated time periods that a company can make use of the asset.

Fiscal year An accounting year of any 12 consecutive months that may or may not coincide with the calendar year. For example, a company may have an accounting, or fiscal, year that runs from April 1 of one year to March 31 of the next.

Matching principle An accounting principle requiring that expenses incurred in producing revenues be deducted from the revenues they generated during the accounting period.

Prepaid expense An asset awaiting assignment to expense. An example is prepaid insurance. Assets such as cash and accounts receivable are not prepaid expenses.

Service potential The benefits that can be obtained from assets. The future services that assets can render make assets "things of value" to a business.

Trend percentages Calculated by dividing the amount of an item for each year by the amount of that item for the base year.

Unearned revenue Assets received from customers before services are performed for them. Since the revenue has not been earned, it is a liability, often called *revenue received in advance* or *advances by customers*.

4.10.4 Self-test

4.10.4.1 True-false

Indicate whether each of the following statements is true or false:

Every adjusting entry affects at least one income statement account and one balance sheet account.

All calendar years are also fiscal years, but not all fiscal years are calendar years.

The accumulated depreciation account is an asset account that shows the amount of depreciation for the current year only.

The Unearned Delivery Fees account is a revenue account.

If all of the adjusting entries are not made, the financial statements are incorrect.

4.10.5 Multiple-choice

Select the best answer for each of the following questions.

An insurance policy premium of USD 1,200 was paid on 2010 September 1, to cover a one-year period from that date. An asset was debited on that date. Adjusting entries are prepared once a year, at year-end. The necessary adjusting entry at the company's year-end, 2010 December 31, is:

a. Prepaid insurance	400	
Insurance expense		400
b. Insurance expense	800	
Prepaid insurance		800
c. Prepaid insurance	800	
Insurance expense		800
d. Insurance expense	400	
Prepaid insurance		400

The Supplies on Hand account has a balance of USD 1,500 at year-end. The actual amount of supplies on hand at the end of the period was USD 400. The necessary adjusting entry is:

a. Supplies expense	1,100	
Supplies on hand		1,100
b. Supplies expense	400	
Supplies on hand		400
c. Supplies on hand	1,100	
Supplies expense		1,100
d. Supplies on hand	400	
Supplies expense		400

A company purchased a truck for USD 20,000 on 2010 January 1. The truck has an estimated residual value of USD 5,000 and is expected to last five years. Adjusting entries are prepared only at year-end. The necessary adjusting entry at 2010 December 31, the company's year-end, is:

a. Depreciation expense – Trucks	4,000	
Accumulated		4,000
b. Depreciation expense – Trucks	3,000	
Trucks		3,000
c. Depreciation expense – Trucks	3,000	
Accumulated depreciation – Trucks		3,000
d. Accumulated depreciation trucks	3,000	
Depreciation expense – Trucks		3,000

A company received cash of USD 24,000 on 2010 October 1, as subscriptions for a one-year period from that date. A liability account was credited when the cash was received. The magazine is to be published by the company and delivered to subscribers each month. The company prepares adjusting entries at the end of each month because it prepares financial statements each month. The adjusting entry the company would make at the end of each of the next 12 months would be:

a. Unearned subscription fees	6,000	
Subscription fee revenue		6,000
b. Unearned subscription fees	2,000	
Subscription fee revenue		2,000
c. Unearned subscription feeds	18,000	
Subscription fee revenue		18,000
d. Subscription fee revenue	2,000	
Unearned subscription fees		2,000

When a company earns interest on a note receivable or on a bank account, the debit and credit are as follows:

	Debit	**Credit**
a.	Accounts receivable	Interest revenue
b.	Interest receivable	Interest revenue
c.	Interest revenue	Accounts receivable
d.	Interest revenue	Interest receivable

If USD 3,000 has been earned by a company's workers since the last payday in an accounting period, the necessary adjusting entry would be:

a. Debit an expense and credit a liability.

b. Debit an expense and credit an asset.

c. Debit a liability and credit an asset.

d. Debit a liability and credit an expense.

Now turn to "Answers to self test" at the back of the book to check your answers.

4.10.6 Questions

- Which events during an accounting period trigger the recording of normal journal entries? Which event triggers the making of adjusting entries?
- Describe the difference between the cash basis and accrual basis of accounting.
- Why are adjusting entries necessary? Why not treat every cash disbursement as an expense and every cash receipt as a revenue when the cash changes hands?
- "Adjusting entries would not be necessary if the 'pure' cash basis of accounting were followed (assuming no mistakes were made in recording cash transactions as they occurred). Under the cash basis, receipts that are of a revenue nature are considered revenue when received, and expenditures that are of an expense nature are considered expenses when paid. It is the use of the accrual basis of accounting, where an effort is made to match expenses incurred against the revenues they create, that makes adjusting entries necessary." Do you agree with this statement? Why?
- Why do accountants not keep all the accounts at their proper balances continuously throughout the period so that adjusting entries would not have to be made before financial statements are prepared?
- What is the fundamental difference between deferred items and accrued items?
- Identify the types of adjusting entries included in each of the two major classes of adjusting entries.
- Give an example of a journal entry for each of the following:
  - Equal growth of an expense and a liability.
  - Earning of revenue that was previously recorded as unearned revenue.
  - Equal growth of an asset and a revenue.
  - Increase in an expense and decrease in an asset.

- A fellow student makes the following statement: "You can easily tell whether a company is using the cash or accrual basis of accounting. When an amount is paid for future rent or insurance services, a firm that is using the cash basis debits an expense account while a firm that is using the accrual basis debits an asset account." Is the student correct?
- You notice that the Supplies on Hand account has a debit balance of USD 2,700 at the end of the accounting period. How would you determine the extent to which this account needs adjustment?
- Some assets are converted into expenses as they expire and some liabilities become revenues as they are earned. Give examples of asset and liability accounts for which this statement is true. Give examples of asset and liability accounts to which the statement does not apply.
- Give the depreciation formula to compute straight-line depreciation for a one-year period.
- What does the term accrued liability mean?
- What is meant by the term service potential?
- When assets are received before they are earned, what type of an account is credited? As the amounts are earned, what type of account is credited?
- What does the word accrued mean? Is there a conceptual difference between interest payable and accrued interest payable?
- Matching expenses incurred with revenues earned is more difficult than matching expenses paid with revenues received. Do you think the effort is worthwhile?
- **Real world question** Refer to the financial statements of The Limited, Inc., in the Annual report appendix. Approximately what percentage of the depreciable assets under property, plant, and equipment has been depreciated as of the end of the most recent year shown?

4.10.7 Exercises

Exercise A Select the correct response for each of the following multiple-choice questions:

The cash basis of accounting:

(a) Recognizes revenues when sales are made or services are rendered.

(b) Recognizes expenses as incurred.

(c) Is typically used by some relatively small businesses and professional persons.

(d) Recognizes revenues when cash is received and recognizes expenses when incurred.

The accrual basis of accounting:

(a) Recognizes revenues only when cash is received.

(b) Is used by almost all companies.

(c) Recognizes expenses only when cash is paid out.

(d) Recognizes revenues when sales are made or services are performed and recognizes expenses only when cash is paid out.

Exercise B Select the correct response for each of the following multiple-choice questions:

The least common accounting period among the following is:

(a) One month.

(b) Two months.

(c) Three months.

(d) Twelve months.

The need for adjusting entries is based on:

(a) The matching principle.

(b) Source documents.

(c) The cash basis of accounting.

(d) Activity that has already been recorded in the proper accounts.

Exercise C Select the correct response for each of the following multiple-choice questions:

Which of the following types of adjustments belongs to the deferred items class?

(a) Asset/revenue adjustments.

(b) Liability/expense adjustments.

(c) Asset/expense adjustments.

(d) Asset/liability adjustments.

Which of the following types of adjustments belongs to the accrued items class?

(a) Asset/expense adjustments.

(b) Liability/revenue adjustments.

(c) Asset/liability adjustments.

(d) Liability/expense adjustments.

Exercise D A one-year insurance policy was purchased on August 1 for USD 2,400, and the following entry was made at that time:

Prepaid Insurance	2,400	
Cash		2,400

What adjusting entry is necessary at December 31, the end of the accounting year?

Show how the T-accounts for Prepaid Insurance and Insurance Expense would appear after the entries are posted.

Exercise E Assume that rent of USD 12,000 was paid on 2010 September 1, to cover a one-year period from that date. Prepaid Rent was debited. If financial statements are prepared only on December 31 of each year, what adjusting entry is necessary on 2010 December 31, to bring the accounts involved to their proper balances?

Exercise F At 2010 December 31, an adjusting entry was made as follows:

Rent Expense	1,500	
Prepaid Rent		1,500

You know that the gross amount of rent paid was USD 4,500, which was to cover a one-year period. Determine:

a. The opening date of the year to which the USD 4,500 of rent applies.

b. The entry that was made on the date the rent was paid.

Exercise G Supplies were purchased for cash on 2010 May 2, for USD 8,000. Show how this purchase would be recorded. Then show the adjusting entry that would be necessary, assuming that USD 2,500 of the supplies remained at the end of the year.

Exercise H Assume that a company acquired a building on 2010 January 1, at a cost of USD 1,000,000. The building has an estimated useful life of 40 years and an estimated residual value of USD 200,000. What adjusting entry is needed on 2010 December 31, to record the depreciation for the entire year 2010?

Exercise I On 2010 September 1, Professional Golfer Journal, Inc., received a total of USD 120,000 as payment in advance for one-year subscriptions to a monthly magazine. A liability account was credited to record this cash receipt. By the end of the year, one-third of the magazines paid for in advance had been delivered. Give the entries to record the receipt of the subscription fees and to adjust the accounts at December 31, assuming annual financial statements are prepared at year-end.

Exercise J On 2010 April 15, Rialto Theater sold USD 90,000 in tickets for the summer musicals to be performed (one per month) during June, July, and August. On 2010 July 15, Rialto Theater discovered that the group that was to perform the July and August musicals could not do so. It was too late to find another group qualified to perform the musicals. A decision was made to refund the remaining unearned ticket revenue to its ticket holders, and this was done on July 20. Show the appropriate journal entries to be made on April 15, June 30, and July 20. Rialto has a June 30th year-end.

Exercise K Guilty & Innocent, a law firm, performed legal services in late December 2010 for clients. The USD 30,000 of services would be billed to the clients in January 2011. Give the adjusting entry that is necessary on 2010 December 31, if financial statements are prepared at the end of each month.

Exercise L A firm borrowed USD 30,000 on November 1. By December 31, USD 300 of interest had been incurred. Prepare the adjusting entry required on December 31.

Exercise M Convenient Mailing Services, Inc., incurs salaries at the rate of USD 3,000 per day. The last payday in January is Friday, January 27. Salaries for Monday and Tuesday of the next week have not been recorded or paid as of January 31. Financial statements are prepared monthly. Give the necessary adjusting entry on January 31.

Exercise N State the effect that each of the following independent situations would have on the amount of annual net income reported for 2010 and 2011.

a, No adjustment was made for accrued salaries of USD 8,000 as of 2010 December 31.

b. The collection of USD 5,000 for services yet unperformed as of 2010 December 31, was credited to a revenue account and not adjusted. The services are performed in 2011.

Exercise O In the following table, indicate the effects of failing to recognize each of the indicated adjustments by writing "O" for overstated and "U" for understated.

		Effect on Balance Sheet Items		
	Effect on	Stockholders'		
Failure to Recognize	Net Income	Assets	Liabilities	Equity
1. Depreciation on a building				
2. Consumption of supplies on hand				
3. The earning of ticket revenue received in advance				
4. The earning of interest on a bank account				
5. Salaries incurred by unpaid				

Exercise P The following data regarding net income (loss) are for Perkins Parts, a medium-sized automotive supplier, for the period 2004–2009.

	Net Income (Earnings) ($ millions)		Net Income (Earnings) ($ millions)
1989	.... $ 860	1995	.... $ 4,139
1990	 3,835	1996	 4,446
1991	.... (2,258)	1997	 6,920
1992	.... (7,385)	1998	 22,071
1993	 2,529	1999	 7,237
1994	 5,308	2000	 3,467

Using 1989 as the base year, calculate the trend percentages, and comment on the results.

4.10.8 Problems

Problem A Among other items, the trial balance of Filmblaster, Inc., a movie rental company, at December 31 of the current year includes the following account balances:

	Debits
Prepaid Insurance	USD 10,000
Prepaid Rent	USD 14,400
Supplies on Hand	USD 2,800

Examination of the records shows that adjustments should be made for the following items:

a. Of the prepaid insurance in the trial balance, USD 4,000 is for coverage during the months after December 31 of the current year.

b. The balance in the Prepaid Rent account is for a 12-month period that started October 1 of the current year.

c. USD 300 of interest has been earned but not received.

d. Supplies used during the year amount to USD 1,800.

Prepare the annual year-end adjusting journal entries at December 31.

Problem B Marathon Magazine, Inc., has the following account balances, among others, in its trial balance at December 31 of the current year:

	Debits	Credits
Supplies on Hand.................	$3,720	
Prepaid Rent	7,200	
Unearned Subscription Fees ...		$15,000
Subscriptions Revenue...........		261,000
Salaries Expense	123,000	

- The inventory of supplies on hand at December 31 amounts to USD 720.
- The balance in the Prepaid Rent account is for a one-year period starting October 1 of the current year.
- One-third of the USD 15,000 balance in Unearned Subscription Fees has been earned.
- Since the last payday, the employees of the company have earned additional salaries in the amount of USD 5,430.

a. Prepare the year-end adjusting journal entries at December 31.

b. Open ledger accounts for each of the accounts involved, enter the balances as shown in the trial balance, post the adjusting journal entries, and calculate year-end balances.

Problem C Hillside Apartments, Inc., adjusts and closes its books each December 31. Assume the accounts for all prior years have been properly adjusted and closed. Following are some of the company's account balances prior to adjustment on 2010 December 31:

HILLSIDE APARTMENTS, INC.

Partial Trial Balance

2010 December 31

	Debits	Credits
Prepaid insurance	$ 7,500	
Supplies on hand	7,000	
Buildings	255,000	
Accumulated depreciation – Buildings		$ 96,000
Unearned rent		2,700
Salaries expense	69,000	
Rent revenue		277,500

The Prepaid Insurance account balance represents the remaining cost of a four-year insurance policy dated 2011 June 30, having a total premium of USD 12,000.

The physical inventory of the office supply stockroom indicates that the supplies on hand cost USD 3,000.

The building was originally acquired on 1994 January 1, at which time management estimated that the building would last 40 years and have a residual value of USD 15,000.

Salaries earned since the last payday but unpaid at December 31 amount to USD 5,000.

Interest earned but not collected on a savings account during the year amounts to USD 400.

The Unearned Rent account arose through the prepayment of rent by a tenant in the building for 12 months beginning 2010 October 1.

Prepare the annual year-end adjusting entries indicated by the additional data.

Problem D The reported net income amounts for Gulf Coast Magazine, Inc., for calendar years 2010 and 2011 were USD 200,000 and USD 222,000, respectively. No annual adjusting entries were made at either year-end for any of the following transactions:

A fire insurance policy to cover a three-year period from the date of payment was purchased on 2010 March 1 for USD 3,600. The Prepaid Insurance account was debited at the date of purchase.

Subscriptions for magazines in the amount of USD 72,000 to cover an 18-month period from 2010 May 1, were received on 2010 April 15. The Unearned Subscription Fees account was credited when the payments were received.

A building costing USD 180,000 and having an estimated useful life of 50 years and a residual value of USD 30,000 was purchased and put into service on 2010 January 1.

On 2011 January 12, salaries of USD 9,600 were paid to employees. The account debited was Salaries Expense. One-third of the amount paid was earned by employees in December of 2010.

Calculate the correct net income for 2010 and 2011. In your answer, start with the reported net income. Then show the effects of each correction (adjustment), using a plus or a minus to indicate whether reported income should be increased or decreased as a result of the correction. When the corrections are added to or deducted from the reported net income amounts, the result should be the correct net income amounts. The answer format should appear as follows:

Explanation of corrections	**2010**	**2011**
Reported net income	$200,000	$222,000
To correct error in accounting for:		
Fire insurance policy premium:		
Correct expense in 2010	-1,000	

Correct expense in 2011	-1,200

Problem E Jupiter Publishing Company began operations on 2010 December 1. The company's bookkeeper intended to use the cash basis of accounting. Consequently, the bookkeeper recorded all cash receipts and disbursements for items relating to operations in revenue and expense accounts. No adjusting entries were made prior to preparing the financial statements for December.

Dec. 1 Issued capital stock for USD 300,000 cash.

3 Received USD 144,000 for magazine subscriptions to run for two years from this date. The magazine is published monthly on the 23rd.

4 Paid for advertising to be run in a national periodical for six months (starting this month). The cost was USD 36,000.

7 Purchased for cash an insurance policy to cover a two-year period beginning December 15, USD 24,000.

12 Paid the annual rent on the building, USD 36,000, effective through 2011 November 30.

15 Received USD 216,000 cash for two-year subscriptions starting with the December issue.

15 Salaries for the period December 1–15 amounted to USD 48,000. Beginning as of this date, salaries will be paid on the 5th and 20th of each month for the preceding two-week period.

20 Salaries for the period December 1–15 were paid.

23 Supplies purchased for cash, USD 21,600. (Only USD 1,800 of these were subsequently used in 2010.)

27 Printing costs applicable equally to the next six issues beginning with the December issue were paid in cash, USD 144,000.

31 Cash sales of the December issue, USD 84,000.

31 Unpaid salaries for the period December 16–31 amounted to USD 22,000.

31 Sales on account of December issue, USD 14,000.

a. Prepare journal entries for the transactions as the bookkeeper prepared them.

b. Prepare journal entries as they would have been prepared under the accrual basis. Where the entry is the same as under the cash basis, merely indicate "same". Where possible, record the original transaction so that no adjusting entry would be necessary at the end of the month. Ignore explanations.

4.10.9 Alternate problems

Alternate problem A The trial balance of Caribbean Vacation Tours, Inc., at December 31 of the current year includes, among other items, the following account balances:

	Debits	Credits
Prepaid Insurance	$24,000	
Prepaid Rent	24,000	
Buildings..	188,000	
Accumulated Depreciation—Buildings............		$31,600
Salaries Expense	200,000	

The balance in the Prepaid Insurance account is the advance premium for one year from September 1 of the current year.

The buildings are expected to last 25 years, with an expected residual value of USD 30,000.

Salaries incurred but not paid as of December 31 amount to USD 8,400.

The balance in Prepaid Rent is for a one-year period that started March 1 of the current year.

Prepare the annual year-end adjusting journal entries at December 31.

Alternate problem B Among the account balances shown in the trial balance of Dunwoody Mail Station, Inc., at December 31 of the current year are the following:

	Debits	Credits
Supplies on hand	$10,000	
Prepaid insurance	6,000	
Buildings	168,000	
Accumulated depreciation and buildings		$ 39,000

The inventory of supplies on hand at December 31 amounts to USD 3,000.

The balance in the Prepaid Insurance account is for a two-year policy taken out June 1 of the current year.

Depreciation for the buildings is based on the cost shown in the Buildings account, less residual value estimated at USD18,000. When acquired, the lives of the buildings were estimated at 50 years each.

a. Prepare the year-end adjusting journal entries at December 31.

b. Open ledger accounts for each of the accounts involved, enter the balances as shown in the trial balance, post the adjusting journal entries, and calculate year-end balances.

Alternate problem C Nevada Camping Equipment Rental Company occupies rented quarters on the main street of Las Vegas. To get this location, the company rented a store larger than needed and subleased (rented) a portion of the area to Max's Restaurant. The partial trial balance of Nevada Camping Equipment Rental Company as of 2010 December 31, is as follows:

NEVEDA CAMPING EQUIPMENT RENTAL COMPANY
Trial Balance
2010 December 31

	Debits	**Credits**
Cash	$100,000	
Prepaid Insurance	11,400	
Supplies on Hand	20,000	
Camping Equipment	176,000	
Accumulated Depreciation—Camping Equipment		$ 19,200
Notes Payable		40,000
Equipment Rental Revenue		1,500,000
Sublease Rental Revenue		8,800
Building Rent Expense	14,400	
Salaries Expense	196,000	

a. Salaries of employees amount to USD 300 per day and were last paid through Wednesday, December 27. December 31 is a Sunday. The store is closed Sundays.

b. An analysis of the Camping Equipment account disclosed:

Balance, 2010 January 1	$128,000
Addition, 2010 July 1	48,000
Balance, 2010 December 31, per trial balance	$176,000

The company estimates that all equipment will last 20 years from the date they were acquired and that the residual value will be zero.

c. The store carries one combined insurance policy, which is taken out once a year effective August 1. The premium on the policy now in force amounts to USD 7,200 per year.

d. Unused supplies on hand at 2010 December 31, have a cost of USD 9,200.

e. December's rent from Max's Restaurant has not yet been received, USD 800.

f. Interest accrued on the note payable is USD 700.

Prepare the annual year-end entries required by the preceding statement of facts.

Alternate problem D The reported net income amounts for Safety Waste Control Company were 2010, USD 200,000; and 2011, USD 230,000. *No* annual adjusting entries were made at either year-end for any of these transactions:

a. A building was rented on 2010 April 1. Cash of USD 14,400 was paid on that date to cover a two-year period. Prepaid Rent was debited.

b. The balance in the Office Supplies on Hand account on 2010 December 31, was USD 6,000. An inventory of the supplies on 2010 December 31, revealed that only USD 3,500 were actually on hand at that date. No new supplies were purchased during 2011. At 2011 December 31, an inventory of the supplies revealed that USD 800 were on hand.

c. A building costing USD 1,200,000 and having an estimated useful life of 40 years and a residual value of USD 240,000 was put into service on 2010 January 1.

d. Services were performed for customers in December 2010. The USD 24,000 bill for these services was not sent until January 2011. The only transaction that was recorded was a debit to Cash and a credit to Service Revenue when payment was received in January.

Calculate the correct net income for 2010 and 2011. In your answer, start with the reported net income amounts. Then show the effects of each correction (adjustment) using a plus or a minus to indicate whether reported income should be increased or decreased as a result of the correction. When the corrections are added to or deducted from the reported net income amounts, the result should be the correct net income amounts. The answer format should be as follows:

Explanation of Corrections	2010	2011
Reported net income	$200,000	$230,000
To correct error in accounting for:		
Prepaid rent:		
Correct expense in 2010	-5,400	
Correct expense in 2011		-7,200

Alternate problem E On 2010 June 1, Richard Cross opened a swimming pool cleaning and maintenance service, Cross Pool Company. He vaguely recalled the process of making journal entries and establishing ledger accounts from a high school bookkeeping course he had taken some years ago. At the end of June, he prepared an income statement for the month of June, but he had the feeling that he had not proceeded correctly. He contacted his brother, John, a recent college graduate with a major in accounting, for assistance. John immediately noted that his brother had kept his records on a cash basis.

June 1 Received cash of USD 28,000 from various customers in exchange for service agreements to clean and maintain their pools for June, July, August, and September.

5 Paid rent for automotive and cleaning equipment to be used during the period June through September, USD 8,000. The payment covered the entire period.

8 Purchased a two-year liability insurance policy effective June 1 for USD 12,000 cash.

10 Received an advance of USD 9,000 from a Florida building contractor in exchange for an agreement to help service pools in his housing development during October through May.

16 Paid salaries for the first half of June, USD 8,400.

17 Paid USD 900 for advertising to be run in a local newspaper for two weeks in June and four weeks in July.

19 Paid the rent of USD 24,000 under a four-month lease on a building rented and occupied on June 1.

26 Purchased USD 5,400 of supplies for cash. (Only USD 900 of these supplies were used in June.)

29 Billed various customers for services rendered, USD 16,000.

30 Unpaid employee services received in the last half of June amounted to USD 12,600.

30 Received a bill for USD 600 for gas and oil used in June.

a. Prepare the entries for the transactions as Richard must have recorded them under the cash basis of accounting.

b. Prepare journal entries as they would have been prepared under the accrual basis. Where the entry is the same as under the cash basis, merely indicate "same". Where possible, record the original transaction so that no adjusting entry would be necessary at the end of the month. Ignore explanations.

4.10.10 Beyond the numbers—Critical thinking

Business decision case A You have just been hired by Top Executive Employment Agency, Inc., to help prepare adjusting entries at the end of an accounting period. It becomes obvious to you that management does not seem to have much of an understanding about the necessity or adjusting entries or which accounts might possibly need adjustment. The first step you take is to prepare the following unadjusted trial balance from the general ledger. Only those ledger accounts that had end-of-year balances are included in the trial balance.

	Debits	Credits
Cash	$ 80,000	
Accounts Receivable	28,000	
Supplies on Hand	3,000	
Prepaid Insurance	2,700	
Office Equipment	120,000	
Accumulated Depreciation—Office Equipment		$ 45,000
Buildings	360,000	
Accumulated Depreciation—Buildings		105,000
Accounts Payable		9,000
Loan Payable (Bank)		15,000
Unearned Commission Fees		30,000
Capital Stock		160,000
Retained Earnings		89,300
Commissions Revenue		270,000
Advertising Expense	6,000	
Salaries Expense	112,500	
Utilities Expense	7,500	
Miscellaneous Expense	3,600	
	$723,300	$723,300

a. Explain to management why adjusting entries in general are made.

b. Explain to management why some of the specific accounts appearing in the trial balance may need adjustment and what the nature of each adjustment might be (do not worry about specific dollar amounts).

Business decision case B A friend of yours, Jack Andrews, is quite excited over the opportunity he has to purchase the land and several miscellaneous assets of Drake Bowling Lanes Company for USD 400,000. Andrews tells you that Mr and Mrs Drake (the sole stockholders in the company) are moving due to Mr Drake's ill health. The annual rent on the building and equipment is USD 54,000.

Drake reports that the business earned a profit of USD 100,000 in 2010 (last year). Andrews believes an annual profit of USD 100,000 on an investment of USD 400,000 is a really good deal. But, before completing the deal, he asks you to look it over. You agree and discover the following:

Drake has computed his annual profit for 2010 as the sum of his cash dividends plus the increase in the Cash account: Dividends of USD 60,000 + Increase in Cash account of USD 40,000 = USD 100,000 profit.

As buyer of the business, Andrews will take over responsibility for repayment of a USD 300,000 loan (plus interest) on the land. The land was acquired at a cost of USD 624,000 seven years ago.

An analysis of the Cash account shows the following for 2010:

Rental revenues received		$465,000
Cash paid out in 2010 for—		
Salaries paid to employees	$260,000	
Utilities paid	18,000	
Advertising expenses paid	15,000	
Supplies purchased and used	24,000	
Interest paid on loan	18,000	
Loan principal paid	30,000	
Cash dividends	60,000	425,000
In crease in cash balance for the year		$ 40,000

You also find that the annual rent of USD 54,000, a December utility bill of USD 4,000, and an advertising bill of USD 6,000 have not been paid.

a. Prepare a written report for Andrews giving your appraisal of Drake Bowling Lanes Company as an investment. Comment on Drake's method of computing the annual profit of the business.

b. Include in your report an approximate income statement for 2010.

Group project C In teams of two or three students, go to the library to locate one company's annual report for the most recent year. Identify the name of the company and the major products or services offered, as well as gross revenues, major expenses, and the trend of profits over the last three years. Calculate trend percentages for revenues, expenses, and profits using the oldest year as the base year. Each team should write a memorandum to management summarizing the data and commenting on the trend percentages. The heading of the memorandum should contain the date, to whom it is written, from whom, and the subject matter.

Group project D With one or two other students and using library and internet sources, write a paper on *Statement of Accounting Standards No. 106,* "Accounting for Postretirement Benefits Other Than Pensions". This standard resulted in some of the largest adjusting entries ever made. Companies had to record an expense and a liability to account for these costs on an accrual basis. In the past they typically had recorded this expense on a cash basis, recognizing the expense only when cash was paid to retirees. Be sure to cite your sources and treat direct quotes properly.

Group project E With one or two other students and using library sources, write a paper on human resource accounting. Generally accepted accounting principles do not allow "human assets" to

be included among assets on the balance sheet. Why is this? Be sure to cite your sources and to treat direct quotes properly.

4.10.11 Using the Internet—A view of the real world

Visit the website:

http://www.pwcglobal.com

Click on the Sarbanes-Oxley Act. Write a brief report to your instructor summarizing your findings.

4.10.12 Answers to self-test

4.10.12.1 True-false

True. Every adjusting entry involves either moving previously recorded data from an asset account to an expense account or from a liability account to a revenue account (or in the opposite direction) or simultaneously entering new data in an asset account and a revenue account or in a liability account and an expense account.

True. A fiscal year is any 12 consecutive months, so all calendar years are also fiscal years. A calendar year, however, must end on December 31, so it does not include fiscal years that end on any date other than December 31 (such as June 30).

False. The accumulated depreciation account is a *contra asset* that shows the total of all depreciation recorded on an asset from its acquisition date up through the balance sheet date.

False. The Unearned Delivery Fees account is a liability. As the fees are earned, the amount in that account is transferred to a revenue account.

True. If an adjusting entry is overlooked and not made, at least one income statement account and one balance sheet account will be incorrect.

4.10.12.2 Multiple-choice

d. One-third of the benefits have expired. Therefore, USD 400 must be moved from the asset (credit) to an expense (debit).

a. USD 1,100 of the supplies have been used, so that amount must be moved from the asset (credit) to an expense (debit).

c. The amount of annual depreciation is determined as (USD 20,000 – USD 5,000) divided by 5 = USD 3,000. The debit is to Depreciation Expense—Trucks, and the credit is to Accumulated Depreciation—Trucks, a contra asset account.

b. Each month USD 2,000 would be transferred from the liability account (debit), Unearned Subscription Fees, to a revenue account (credit).

b. An asset, Interest Receivable, is debited, and Interest Revenue is credited.

a. The debit would be to Salaries Expense, and the credit would be to Salaries Payable.

5 Completing the accounting cycle

5.1 Learning objectives

After studying this chapter, you should be able to:

- Summarize the steps in the accounting cycle.
- Prepare a work sheet for a service company.
- Prepare an income statement, statement of retained earnings, and balance sheet using information contained in the work sheet.
- Prepare adjusting and closing entries using information contained in the work sheet.
- Prepare a post-closing trial balance.
- Describe the evolution of accounting systems.
- Prepare a classified balance sheet.
- Analyze and use the financial results—the current ratio.

5.2 A career in information systems

Have you ever heard the sayings "knowledge is power" or "information is money"? When people talk about accounting, what they are really talking about is information. The information used by businesses, as well as the technology that supports that information, represents some of the most valuable assets for organizations around the world. Very often, the success of a business depends on effective creation, management, and use of information.

As companies become ever more reliant on technology, the need for well-educated Management Information Systems (MIS) auditors and control professionals increases. Improved technology has the potential to dramatically improve business organizations and practices, reduce costs and exploit new business and investment opportunities. At the same time, companies face constant challenges in selecting and implementing these new technologies. Because of their high value and inherent complexity, the development, support, and auditing of information systems has become one of the fastest growing specialties in accounting.

Graduates with special interests and skills in computing and technology have expansive opportunities. In addition to traditional accounting and auditing functions, MIS professionals perform evaluations of technologies and communications protocols involving electronic data interchange, client servers, local and wide area networks, data communications, telecommunications, and integrated voice/data/video systems. In public accounting, technology has impacted the auditing profession by

extending the knowledge required to draw conclusions and the skills required to audit advanced accounting and information systems.

With management consulting practices growing and information systems becoming a larger percentage of public accounting revenue, MIS professionals are in high demand. If you are considering a degree in computer or information systems, you should consider the advantages that an accounting major or minor can give you in working closely with businesses and consulting firms. A dual major in accounting and MIS is one of the most desirable undergraduate degree combinations in the workforce.

This chapter explains two new steps in the **accounting cycle**—the preparation of the work sheet and closing entries. In addition, we briefly discuss the evolution of accounting systems and present a classified balance sheet. This balance sheet format more closely resembles actual company balance sheets. After completing this chapter, you will understand how accounting begins with source documents that are evidence of a business entity's transactions and ends with financial statements that show the solvency and profitability of the entity.

5.3 The accounting cycle summarized

In Chapter 1, you learned that when an event is a measurable business transaction, you need adequate proof of this transaction. Then, you analyze the transaction's effects on the accounting equation, Assets = Liabilities + Stockholders' equity. In Chapters 2 and 3, you performed other steps in the accounting cycle. Chapter 2 presented the eight steps in the accounting cycle as a preview of the content of Chapters 2 through 4. As a review, study the diagram of the eight steps in the accounting cycle in Exhibit 19. Remember that the first three steps occur during the accounting period and the last five occur at the end. The next section explains how to use the work sheet to facilitate the completion of the accounting cycle.

5.4 The work sheet

The **work sheet** is a columnar sheet of paper or a computer spreadsheet on which accountants summarize information needed to make the adjusting and closing entries and to prepare the financial statements. Usually, they save these work sheets to document the end-of-period entries. A work sheet is only an accounting tool and not part of the formal accounting records. Therefore, work sheets may vary in format; some are prepared in pencil so that errors can be corrected easily. Other work sheets are prepared on personal computers with spreadsheet software. Accountants prepare work sheets each time financial statements are needed—monthly, quarterly, or at the end of the accounting year.

This chapter illustrates a 12-column work sheet that includes sets of columns for an unadjusted trial balance, adjustments, adjusted trial balance, income statement, statement of retained earnings, and balance sheet. Each set has a debit and a credit column. (See Exhibit 20.)

Accountants use these initial steps in preparing the work sheet. The following sections describe the detailed steps for completing the work sheet.

- Enter the titles and balances of ledger accounts in the Trial Balance columns.
- Enter adjustments in the Adjustments columns.
- Enter adjusted account balances in the Adjusted Trial Balance columns.
- Extend adjusted balances of revenue and expense accounts from the Adjusted Trial Balance columns to the Income Statement columns.
- Extend any balances in the Retained Earnings and Dividends accounts to the Statement of Retained Earnings columns.
- Extend adjusted balances of asset, liability, and capital stock accounts from the Adjusted Trial Balance columns to the Balance Sheet columns.

Instead of preparing a separate trial balance as we did in Chapter 2, accountants use the Trial Balance columns on a work sheet. Look at Exhibit 20 and note that the numbers and titles of the ledger accounts of MicroTrain Company are on the left portion of the work sheet. Usually, only those accounts with balances as of the end of the accounting period are listed. (Some accountants do list the entire chart of accounts, even those with zero balances.) Assume you are MicroTrain's accountant. You list the Retained Earnings account in the trial balance even though it has a zero balance to (1) show its relative position among the accounts and (2) indicate that December 2010 is the first month of operations for this company. Next, you enter the balances of the ledger accounts in the Trial Balance columns. The accounts are in the order in which they appear in the general ledger: assets, liabilities, stockholders' equity, dividends, revenues, and expenses. Then, total the columns. If the debit and credit column totals are not equal, an error exists that must be corrected before you proceed with the work sheet.

As you learned in Chapter 3, adjustments bring the accounts to their proper balances before accountants prepare the income statement, statement of retained earnings, and balance sheet. You enter these adjustments in the Adjustments columns of the work sheet. Also, you cross-reference the debits and credits of the entries by placing a key number or letter to the left of the amounts. This key number facilitates the actual journalizing of the adjusting entries later because you do not have to rethink the adjustments to record them. For example, the number (1) identifies the adjustment debiting Insurance Expense and crediting Prepaid Insurance. Note in the Account Titles column that

the Insurance Expense account title is below the trial balance totals because the Insurance Expense account did not have a balance before the adjustment and, therefore, did not appear in the trial balance.

Work sheet preparers often provide brief explanations at the bottom for the keyed entries as in Exhibit 20. Although these explanations are optional, they provide valuable information for those who review the work sheet later.

The adjustments (which were discussed and illustrated in Chapter 3) for MicroTrain Company are:

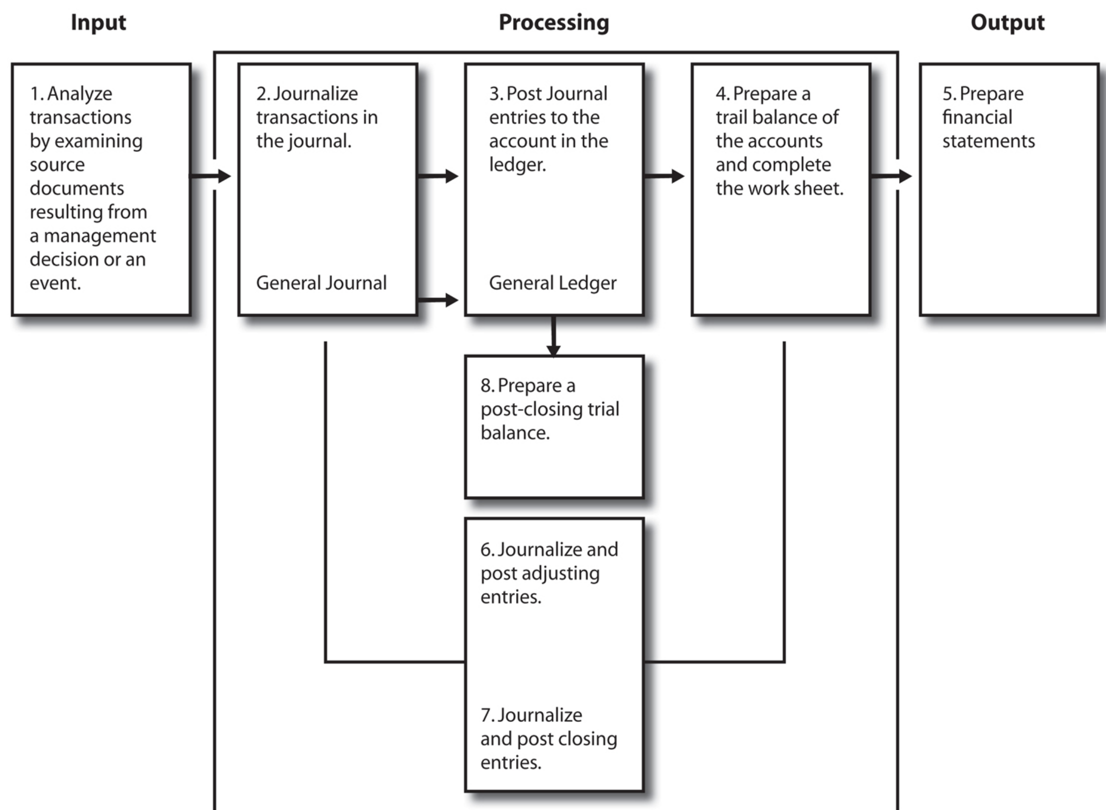


Exhibit 19: Steps in the accounting cycle

- Entry (1) records the expiration of USD 200 of prepaid insurance in December.
- Entry (2) records the expiration of USD 400 of prepaid rent in December.
- Entry (3) records the using up of USD 500 of supplies during the month.
- Entry (4) records USD 750 depreciation expense on the trucks for the month. MicroTrain acquired the trucks at the beginning of December.

MicroTrain acquired the trucks at the beginning of December

- Entry (5) records the earning of USD 1,500 of the USD 4,500 in the Unearned Service Fees account.
- Entry (6) records USD 600 of interest earned in December.
- Entry (7) records USD 1,000 of unbilled training services performed in December.
- Entry (8) records the USD 180 accrual of salaries expense at the end of the month.

Often it is difficult to discover all the adjusting entries that should be made. The following steps are helpful:

- Examine adjusting entries made at the end of the preceding accounting period. The same types of entries often are necessary period after period.
- Examine the account titles in the trial balance. For example, if the company has an account titled Trucks, an entry must be made for depreciation.
- Examine various business documents (such as bills for services received or rendered) to discover other assets, liabilities, revenues, and expenses that have not yet been recorded.
- Ask the manager or other personnel specific questions regarding adjustments that may be necessary. For example: "Were any services performed during the month that have not yet been billed?"

MICROTRAIN COMPANY Work Sheet For the Month Ended 2010 December 31

Acct.	Account Titles	Trial Balance		Adjustments		Adjusted Trail Balance		Income Statement		Statement of Retained Earnings		Balance Sheet
No.		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
100	Cash	8,250				8,250						8,250
103	Accounts Receivable	5,200		(7) 1,000		6,200						6,200
107	Supplies on Hand	1,400			(3) 500	900						900
108	Prepaid Insurance	2,400			n) 200	2,200						2,200
112	Prepaid Rent	1,200			(2) 400	BOO						800
150	Trucks	40,0 0 0				40,00 0						40,000
200	Accounts Payable		730				730					
216	Unearned Service Fees		4,500	(5) 1,500			3,000					
300	Capital Stock		50,000				50,000					
310	Retained Earnings 2010 December 31		—0-				—0—				-0-	
320	Dividends	3,000				3,000				3,000		
400	Service				(5) 1,500							
	Revenue		10,700		(7) 1,000		13,200		13,20 0			
505	Advertising Expense	50				SO		50				
506	Gas and Oil Expense	690				660		680				
507	Salaries Expense	3,600		(3) 130		3,7S0		3,780				
511	Utilities Expense	150				ISO		150				
		65,930	65,930									
512	Insurance Expense			(1) 200		200		200				
SIS	Rent Expense			(Z) 400		400		400				
518	Supplies Expense			(3) 500		500		500				
521	Depreciation Expense-Trucks			(t) 750		750		750				
151	Accumulated Depreciation-Trucks				(t) 750		750					
121	Interest Receivable			m 600		600						600
418	Interest Revenue				(6) 500		600		GOO			
206	Salaries Payable				(S) 180		ISO					
				5,130	5,130	53,40 0	6S,4G0	6,510	13,80 0			
	Net Income							7,290			7,290	
								13,80 0	13,80 0	3,000	7,29C	
	Retained Earnings, 2010 December 31									4,290		
										7,290	7,29C	53,950

Exhibit 20: Completed worksheet

(1) To record insurance expenses for December.

(2) To record rent expenses for December.

(3) To record supplies expenses for December.

(4) To record depreciation expenses for December.

(5) To transfer fees for service provided in December from the liability account to the revenue account.

(6) To record one month's interest revenue.

(7) To record unbilled training services performed in December.

(8) To accrue one day's salaries that were earned but are unpaid.

After all the adjusting entries are entered in the Adjustments columns, total the two columns. The totals of these two columns should be equal when all debits and credits are entered properly.

After MicroTrain's adjustments, compute the adjusted balance of each account and enter these in the Adjusted Trial Balance columns. For example, Supplies on Hand (Account No. 107) had an unadjusted balance of USD 1,400. Adjusting entry (3) credited the account for USD 500, leaving a debit balance of USD 900. This amount is a debit in the Adjusted Trial Balance columns.

Next, extend all accounts having balances to the Adjusted Trial Balance columns. Note carefully how the rules of debit and credit apply in determining whether an adjustment increases or decreases the account balance. For example, Salaries Expense (Account No. 507) has a USD 3,600 debit balance in the Trial Balance columns. A USD 180 debit adjustment increases this account, which has a USD 3,780 debit balance in the Adjusted Trial Balance columns.

Some account balances remain the same because no adjustments have affected them. For example, the balance in Accounts Payable (Account No. 200) does not change and is simply extended to the Adjusted Trial Balance columns.

Now, total the Adjusted Trial Balance debit and credit columns. The totals must be equal before taking the next step in completing the work sheet. When the Trial Balance and Adjustments columns both balance but the Adjusted Trial Balance columns do not, the most probable cause is a math error or an error in extension. The Adjusted Trial Balance columns make the next step of sorting the amounts to the Income Statement, the Statement of Retained Earnings, and the Balance Sheet columns much easier.

Begin by extending all of MicroTrain's revenue and expense account balances in the Adjusted Trial Balance columns to the Income Statement columns. Since revenues carry credit balances, extend them to the credit column. After extending expenses to the debit column, subtotal each column. MicroTrain's total expenses are USD 6,510 and total revenues are USD 13,800. Thus, net income for the period is

USD 7,290 (USD 13,800—USD 6,510). Enter this USD 7,290 income in the debit column to make the two column totals balance. You would record a net loss in the opposite manner; expenses (debits) would have been larger than revenues (credits) so a net loss would be entered in the credit column to make the columns balance.

Next, complete the Statement of Retained Earnings columns. Enter the USD 7,290 net income amount for December in the credit Statement of Retained Earnings column. Thus, this net income amount is the balancing figure for the Income Statement columns and is also in the credit Statement of Retained Earnings column. Net income appears in the Statement of Retained Earnings credit column because it causes an increase in retained earnings. Add the USD 7,290 net income to the beginning retained earnings balance of USD 0, and deduct the dividends of USD 3,000. As a result, the ending balance of the Retained Earnings account is USD 4,290.

Now extend the assets, liabilities, and capital stock accounts in the Adjusted Trial Balance columns to the Balance Sheet columns. Extend asset amounts as debits and liability and capital stock amounts as credits.

Note that the ending retained earnings amount determined in the Statement of Retained Earnings columns appears again as a credit in the Balance Sheet columns. The ending retained earnings amount is a debit in the Statement of Retained Earnings columns to balance the Statement of Retained Earnings columns. The ending retained earnings is a credit in the Balance Sheet columns because it increases stockholders' equity, and increases in stockholders' equity are credits. (Retained earnings would have a debit ending balance only if cumulative losses and dividends exceed cumulative earnings.) With the inclusion of the ending retained earnings amount, the Balance Sheet columns balance.

When the Balance Sheet column totals do not agree on the first attempt, work backward through the process used in preparing the work sheet. Specifically, take the following steps until you discover the error:

MICROTRAIN COMPANY
Income Statement
For the Month Ended 2010 December 31

Revenues:		
Service Revenue		*$13,200*
Interest Revenue		*600*
Total Revenue		*$13,800*
Expenses:		
Advertising Expense	*$ 50*	
Gas and Oil Expense	*680*	
Salaries Expense	*3,780*	
Utilities Expense	*150*	
Insurance Expense	*200*	
Rent Expense	*400*	
Supplies Expense	*500*	
Depreciation Expense—Trucks	*750*	
Total Expense		*6,510*
Net Income		*$ 7,290*

Exhibit 21: Income statement

- Re-total the two Balance Sheet columns to see if you made an error in addition. If the column totals do not agree, check to see if you did not extend a balance sheet item or if you made an incorrect extension from the Adjusted Trial Balance columns.
- Re-total the Statement of Retained Earnings columns and determine whether you entered the correct amount of retained earnings in the appropriate Statement of Retained Earnings and Balance Sheet columns.
- Re-total the Income Statement columns and determine whether you entered the correct amount of net income or net loss for the period in the appropriate Income Statement and Statement of Retained Earnings columns.

An accounting perspective: Uses of technology

Electronic spreadsheets have numerous applications in accounting. An electronic spreadsheet is simply a large blank page that contains rows and columns on the computer screen. The blocks created by the intersection of the rows and columns are cells; each cell can hold one or more words, a number, or the product of a mathematical formula. Spreadsheets are ideal for creating large work sheets, trial balances, and other schedules, and for performing large volumes of calculations such as depreciation calculations. The most popular spreadsheet program is Microsoft

Excel®. Free spreadsheet programs are also available from companies such as Google and Zoho.

5.5 Preparing financial statements from the work sheet

When the work sheet is completed, all the necessary information to prepare the income statement, statement of retained earnings, and balance sheet is readily available. Now, you need only recast the information into the appropriate financial statement format.

The information you need to prepare the income statement in Exhibit 21 is in the work sheet's Income Statement columns in Exhibit 20.

The information you need to prepare the statement of retained earnings is taken from the Statement of Retained Earnings columns in the work sheet. Look at Exhibit 22, MicroTrain Company's statement of retained earnings for the month ended 2010 December 31. To prepare this statement, use the beginning Retained Earnings account balance (Account No. 310), add the net income (or deduct the net loss), and then subtract the Dividends (Account No. 320). Carry the ending Retained Earnings balance forward to the balance sheet. Remember that the statement of retained earnings helps to relate income statement information to balance sheet information. It does this by indicating how net income on the income statement relates to retained earnings on the balance sheet.

MICROTRAIN COMPANY

Statement of Retained Earnings

For the Month Ended 2010 December 31,

Retained earnings, 2010 December 1	*$*	*—0—*
Net income for the December		*7,290*
Total	*$*	*7,290*
Less: Dividends		*3,000*
Retained earnings, 2010 December 31	*$*	*4,290*

Exhibit 22: Statement of retained earnings

MICROTRAIN COMPANY		
Balance Sheet		
2010 December 31		
Assets		
Cash		*$ 8,250*
Accounts receivable		*6,200*
Supplies on hand		*900*
Prepaid insurance		*2,200*
Prepaid rent		*800*
Interest receivable		*600*
Trucks	*$ 40,000*	
Less: Accumulated depredation 750		*39,250*
Total assets		*$ 58,200*
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable		*$ 730*
Unearned service fees		*3,000*
Salaries payable		*180*
Total liabilities		*$ 3,910*
Stockholders' equity:		
Capital stock	*$ 50,000*	
Retained earnings 4,290		
Total stockholders' equity		*54,290*
Total liabilities and stockholders' equity		*$ 58,200*

Exhibit 23: Balance sheet

The information needed to prepare a balance sheet comes from the Balance Sheet columns of MicroTrain's work sheet (Exhibit 20). As stated earlier, the correct amount for the ending retained earnings appears on the statement of retained earnings. See the completed balance sheet for MicroTrain in Exhibit 23.

5.6 Journalizing adjusting entries

After completing MicroTrain's financial statements from the work sheet, you should enter the adjusting entries in the general journal and post them to the appropriate ledger accounts. You would prepare these adjusting entries as you learned in Chapter 3, except that the work sheet is now your source for making the entries. The preparation of a work sheet does not eliminate the need to prepare and post adjusting entries because the work sheet is only an informal accounting tool and is not part of the formal accounting records.

The numerical notations in the Adjustments columns and the adjustments explanations at the bottom of the work sheet identify each adjusting entry. The Adjustments columns show each entry with its appropriate debit and credit. MicroTrain's adjusting entries as they would appear in the general journal after posting are:

MICROTRAIN COMPANY
General Journal page3

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010		**Adjusting Entries**			
Dec.	31	Insurance Expense (-SE)	512	2 0 0	
		Prepaid Insurance (-A)	108		2 0 0
		To record insurance expense for December.			
	31	Rent Expense (-SE)	515	4 0 0	
		Prepaid Rent (-A)	112		4 0 0
		To record rent expense for December.			
	31	Supplies Expense (-SE)	518	5 0 0	
		Supplies on Hand (-A)	107		5 0 0
		To record supplies used during December.			
	31	Depreciation Expense—Trucks (-SE)	521	7 5 0	
		Accumulated Depredation—Trucks (-A)	151		7 5 0
		To record depreciation expense for December.			
	31	Unearned Service Fees (-L)	216	1 5 0 0	
		Service Revenue (+SE)	400		1 5 0 0
		To transfer a potion of training fees from the liability account to the revenue account.			
	31	Interest Receivable (+A)	121	6 0 0	
		Interest Revenue (+SE)	418		6 0 0
		To record one month's interest revenue.			
	31	Accounts Receivable (+A)	103	1 0 0 0	
		Service Revenue (+SE)	400		1 0 0 0
		To record unbilled training services performed in December.			
	31	Salaries Expense (-SE)	507	1 8 0	
		Salaries Payable (+L)	206		1 8 0
		To accrue one day's salaries that were earned by are unpaid.			

5.7 The closing process

In Chapter 2, you learned that revenue, expense, and dividends accounts are nominal (temporary) accounts that are merely subclassifications of a real (permanent) account, Retained Earnings. You also learned that we prepare financial statements for certain accounting periods. The **closing process** transfers (1) the balances in the revenue and expense accounts to a clearing account called Income

Summary and then to Retained Earnings and (2) the balance in the Dividends account to the Retained Earnings account. The closing process reduces revenue, expense, and Dividends account balances to zero so they are ready to receive data for the next accounting period. Accountants may perform the closing process monthly or annually.

The **Income Summary account** is a clearing account used only at the end of an accounting period to summarize revenues and expenses for the period. After transferring all revenue and expense account balances to Income Summary, the balance in the Income Summary account represents the net income or net loss for the period. Closing or transferring the balance in the Income Summary account to the Retained Earnings account results in a zero balance in Income Summary.

Also closed at the end of the accounting period is the Dividends account containing the dividends declared by the board of directors to the stockholders. We close the Dividends account directly to the Retained Earnings account and not to Income Summary because dividends have no effect on income or loss for the period.

In accounting, we often refer to the process of closing as closing the books. Remember that only revenue, expense, and Dividend accounts are closed—not asset, liability, Capital Stock, or Retained Earnings accounts. The four basic steps in the closing process are:

- **Closing the revenue accounts**—transferring the balances in the revenue accounts to a clearing account called Income Summary.
- **Closing the expense accounts**—transferring the balances in the expense accounts to a clearing account called Income Summary.
- **Closing the Income Summary account**—transferring the balance of the Income Summary account to the Retained Earnings account.
- **Closing the Dividends account**—transferring the balance of the Dividends account to the Retained Earnings account.

Revenues appear in the Income Statement credit column of the work sheet. The two revenue accounts in the Income Statement credit column for MicroTrain Company are service revenue of USD 13,200 and interest revenue of USD 600 (Exhibit 20). Because revenue accounts have credit balances, you must debit them for an amount equal to their balance to bring them to a zero balance. When you debit Service Revenue and Interest Revenue, credit Income Summary (Account No. 600). Enter the account numbers in the Posting Reference column when the journal entry has been posted to the ledger. Do this for all other closing journal entries.

MICROTRAIN COMPANY
General Journal **Page 4**

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010		**Closing Entries**			
Dec.	*31*	*Service Revenue*	*400*	*1 3 2 0 0*	
		Interest Revenue	*418*	*6 0 0*	
		Income Summary	*600*		*1 3 8 0 0*
		To close the revenue accounts in the Income Statement credit column to Income Summary.			

After the closing entries have been posted, the Service Revenue and Interest Revenue accounts (in T-account format) of MicroTrain appear as follows. Note that the accounts now have zero balances.

		Service Revenue		
	(Dr)	Account No. 400		(Cr.)
	2010		*Bal. before closing*	*13,200*
Decreased by $13,200	*Dec. 31*	*To close to Income Summary13,200*		
			Bal. after closing	*—0—*
		Interest Revenue		
		Account No. 418		(Cr.)
	2010		*Bal. before closing*	*600*
Decreased by $600	*Dec. 31*	*To close to Income Summary 600*		
			Bal. after closing	*—0—*

As a result of the previous entry, you would credit the Income Summary account for USD 13,800. We show the Income Summary account in Step 3.

Expenses appear in the Income Statement debit column of the work sheet. MicroTrain Company has eight expenses in the Income Statement debit column. As shown by the column subtotal, these expenses add up to USD 6,510. Since expense accounts have debit balances, credit each account to bring it to a zero balance. Then, make the debit in the closing entry to the Income Summary account for USD 6,510. Thus, to close the expense accounts, MicroTrain makes the following entry:

MICROTRAIN COMPANY
General Journal Page **4**

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	31	*Income Summary*	600	6 5 1 0	
		Advertising Expense	505		5 0
		Gas and Oil Expense	506		6 8 0
		Salaries Expense	507		3 7 8 0
		Utilities Expense	511		1 5 0
		Insurance Expense	512		2 0 0
		Rent Expense	515		4 0 0
		Supplies Expense	518		5 0 0
		Depreciation Expense—Trucks	521		7 5 0
		To close the expense accounts appearing in the Income			

The debit of USD 6,510 to the Income Summary account agrees with the Income Statement debit column subtotal in the work sheet. This comparison with the work sheet serves as a check that all revenue and expense items have been listed and closed. If the debit in the preceding entry was made for a different amount than the column subtotal, the company would have an error in the closing entry for expenses.

After they have been closed, MicroTrain's expense accounts appear as follows. Note that each account has a zero balance after closing.

Advertising Expense

(Dr)	*Account No. 505*		*(Cr.)*	
Bal. before closing	**■ 50**	**2010 ■ ■**		
		Dec. 31 To close to Income Summary	**50**	**Decreased by $50**
Bal. after closing	**—0—**			

Gas and Oil Expense

(Dr.)	*Account No. 506*		*(Cr.)*	
Bal. before closing	**680**	**2010**		
		Dec. 31 To close to Income Summary	**680**	**Decreased by $680**
Bal. after closing	**—0—**			

Salaries Expense

(Dr.)	*Account No. 507*		*(Cr.)*	
Bal. before closing	**3,780**	**2010**		
		Dec. 31 To close to Income Summary	**3,780**	**Decreased by $3,780**
Bal. after closing	**—0—**			

Utilities Expense

(Dr.)	*Account No. 511*		*(Cr.)*	
Bal. before closing	**150**	**2010**		
		Dec. 31 To close to Income Summary	**150**	**Decreased by $150**
Bal. after closing	**—0—**			

Insurance Expense

(Dr.)	*Account No. 512*		*(Cr.)*	
Bal. before closing	**200**	**2010**		
		Dec. 31 To close to Income Summary	**200**	**Decreased by $200**

Bal. after closing	**—0—**			

Rent Expense

(Dr.)	*Account No. 515*		*(Cr.)*	
Bal. before closing	**400**	**2010**		
		Dec. 31 To close to Income Summary	**400**	**Decreased by $400**
Bal. after closing	**—0—**			

Supplies Expense

(Dr.)	*Account No. 518*		*(Cr.)*	
Bal. before closing	**500**	**2010**		
		Dec. 31 To close to Income Summary	**500**	**Decreased by $500**
Bal. after closing	**—0—**			

Depreciation Expense-Trucks

(Dr.)	*Account No. 521*		*(Cr.)*	
Bal. before closing	**■ 750'**	**2010 "**		
		Dec. 31 To close to Income Summary	**750**	**Decreased by $750**
Bal. after closing	**—0—**			

The expense accounts could be closed before the revenue accounts; the end result is the same.

As the result of closing the revenues and expenses of MicroTrain, the total revenues and expenses have been transferred to the Income Summary account.

Income Summary

If total expenses exceed total revenues, the account has a debit balance, which is the net loss for the period	**Total expenses** *w*	**Total revenues**	*If total revenues exceed total expenses, the account has a credit balance, which is the net income for the period.*

MicroTrain's Income Summary account now has a credit balance of USD 7,290, the company's net income for December.

(Dr)	Income Summary			(Cr.)
2010 Dec. 31	From closing the expense accounts	6,510	2010 Dec. 31 From closing the revenue accounts	13,800
			Bal. before closing this account (net income)	7,290

Next, close MicroTrain's Income Summary account to its Retained Earnings account. The journal entry to do this is:

MICROTRAIN COMPANY
General Journal

Page 4

Date		Account Titles and Explanation	Post. Ref.	Debt	Credit
2010 Dec.	31	Income Summary	600	7 2 9 0	
		Retained Earnings	310		7 2 9 0
		To close the Income Summary account to the Retained Earnings account.			

After its Income Summary account is closed, the company's Income Summary and Retained Earnings accounts appear as follows:

(Dr.) Account No. 600	Income Summary		(Cr.)
2010 Dec. 31 From closing the expense accounts	6,510	"2010 Dec. 31 From closing The revenue accounts	13,800
		Bal. before closing this account (net income)	7,290
Dec. 31 To close this account to Retain ed Earnings	7,290		
		Bal. after closing	—0—

(Dr)	Retained Earnings Account No. 310		(Cr.)	
		Bal. before closing Process	-0-	
		2010 Dec. 31 From Income Summary	7,290	Decreased by $7,290

The last closing entry closes MicroTrain's Dividends account. This account has a debit balance before closing. To close the account, credit the Dividends account and debit the Retained Earnings account. The Dividends account is not closed to the Income Summary because it is not an expense and

does not enter into income determination. The journal entry to close MicroTrain's Dividends account is:

MICROTRAIN COMPANY
General Journal *Page 4*

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 Dec.	31	Retained Earnings (-SE)	310	3 0 0 0	
		Dividends (+SE)	320		3 0 0 0
		To close the Dividends account to the Retained Earnings account.			

After this closing entry is posted, the company's Dividends and Retained Earnings accounts appear as follows:

Dividends

(Dr.)	Account No. 320 (Cr.)	
Bal. before closing 3,000	2010 Dec. 31 To close to Retained Earning	3000
		Decreased by $3,000
Bal. after closing —0—		

Retained Earnings

(Dr.)	Account No. 310 (Cr.)
2010	Bal. before closing process -0-
	2010
Dec. 31 From dividends 3,000	Dec. 31 From Income Summary 7,290
	Bal. after closing process is complete 4,290

After you have completed the closing process, the only accounts in the general ledger that have not been closed are the permanent balance sheet accounts. Because these accounts contain the opening balances for the coming accounting period, debit balance totals must equal credit balance totals. The preparation of a post-closing trial balance serves as a check on the accuracy of the closing process and ensures that the books are in balance at the start of the new accounting period. The post-closing trial balance differs from the adjusted trial balance in only two important respects: (1) it excludes all temporary accounts since they have been closed; and (2) it updates the Retained Earnings account to its proper ending balance.

A **post-closing trial balance** is a trial balance taken after the closing entries have been posted. The only accounts that should be open are assets, liabilities, capital stock, and Retained Earnings accounts. List all the account balances in the debit and credit columns and total them to make sure debits and credits are equal.

Look at Exhibit 24, a post-closing trial balance for MicroTrain Company as of 2010 December 31. The amounts in the post-closing trial balance are from the ledger after the closing entries have been posted.

The next section briefly describes the evolution of accounting systems from the one-journal, one-ledger manual system you have been studying to computerized systems. Then, we discuss the role of an accounting system.

An accounting perspective: Uses of technology

If you are studying in the US, you may want to visit the American Institute of Certified Public Accountants website at: http://www.aicpa.org

You will find information about the CPA exam, about becoming a CPA, hot accounting topics, and various other topics, such as the US states that have passed a 150-hour requirement to sit for the CPA exam. You can also learn such things as the states that have approved limited liability companies (LLCs) and limited liability partnerships (LLPs). These forms of organization serve to place limits on accountants' liability. You can also find the phone numbers and mailing addresses of State Boards of accountancy and State Societies of CPAs. Browse around this site to investigate anything else that is of interest. Similar sites are available in other countries as well.

5.8 Accounting systems: From manual to computerized

The manual accounting system with only one general journal and one general ledger has been in use for hundreds of years and is still used by some very small companies. Gradually, some manual systems evolved to include multiple journals and ledgers for increased efficiency. For instance, a manual system with multiple journals and ledgers often includes: a sales journal to record all credit sales, a purchases journal to record all credit purchases, a cash receipts journal to record all cash receipts, and a cash disbursements journal to record all cash payments. Still recorded in the general journal are adjusting and closing entries and any other entries that do not fit in one of the special journals. Besides the general ledger, such a system normally has subsidiary ledgers for accounts receivable and accounts

payable showing how much each customer owes and how much is owed to each supplier. The general ledger shows the total amount of accounts receivable and accounts payable, but the details in the subsidiary ledgers allow companies to send bills to customers and pay bills to suppliers.

Another innovation in manual systems was the "one write" or pegboard system. By creating one document and aligning other records under it on a pegboard, companies could record transactions more efficiently. These systems permit the writing of a check and the simultaneous recording of the check in the cash disbursements journal. Even though some of these systems are still in use today, computers make them obsolete.

During the 1950s, companies also used bookkeeping machines to supplement manual systems. These machines recorded recurring transactions such as sales on account. They posted transactions to the general ledger and subsidiary ledger accounts and computed new balances. With the development of computers, bookkeeping machines became obsolete. They were quite expensive, and computers easily outperformed them. In the mid-1950s, large companies began using mainframe computers. Early accounting applications were in payroll, accounts receivable, accounts payable, and inventory. Within a few years, programs existed for all phases of accounting, including manufacturing operations and the total integration of other accounting programs with the general ledger. Until the 1980s, small and medium-sized companies either continued with a manual system, rented time on another company's computer, or hired a service bureau to perform at least some accounting functions.

MICROTRAIN COMPANY
Trial Balance
2010 December 31

Acct. No.	Account Title	Debits	Credits
100	*Cash*	*$ 8,250*	
103	*Accounts Receivable*	*6,200*	
107	*Supplies on Hand*	*900*	
108	*Prepaid Insurance*	*2,200*	
112	*Prepaid Rent*	*800*	
121	*Interest Receivable*	*600*	
150	*Trucks*	*40,000*	
151	*Accumulated Depreciation—Trucks*		*$ 750*
200	*Accounts Payable*		*730*
206	*Salaries Payable*		*180*
216	*Unearned Service Fees*		*3,000*
300	*Capital Stock*		*50,000*
310	*Retained Earnings*		*4,290*
		$ 58,950	*$ 58,950*

Exhibit 24: Post closing trial balance

An accounting perspective: Business insight

Imagine a company with an Accounts Receivable account and an Accounts Payable account in its general ledger and no Accounts Receivable Subsidiary Ledger or Accounts Payable Subsidiary Ledger. How would this company know to whom to send bills and in what amounts? Also, how would employees know for which suppliers to write checks and in what amounts? Such subsidiary records are necessary either on paper or in a computer file.

Here is how the general ledger and subsidiary ledgers might look:

Subsidiary Accounts Receivable Ledger	*General Ledger*	*Subsidiary Accounts Payable Ledger*
JOHN JONES	*ACCOUNTS RECEIVABLE*	*BELL CORPORATION*
200 l	*900*	*100*
SYLVIA SMITH		*GRANGER CORPORATION*
300 l	*ACCOUNTS PAYABLE*	*600*
	1,000	
JAMES WELLS		*WONG CORPORATION*
400 l		*300*

When a sale on account is made to John Jones, the debit is posted to both the control account, Accounts Receivable, in the General Ledger and the subsidiary account, John Jones, in the Subsidiary Accounts Receivable Ledger. Likewise, when a purchase on account is made from Bell Corporation, the credit is posted to both the control account, Accounts Payable, in the General Ledger and to the subsidiary account, Bell Corporation, in the Subsidiary Accounts Payable Ledger. At the end of the accounting period, the balances in each of the control accounts in the General Ledger must agree with the totals of the accounts in their respective subsidiary ledgers as shown above. A given company could have hundreds or even thousands of accounts in their subsidiary ledgers that show the detail not supplied by the totals in the control accounts.

A broader perspective: Skills for the long haul

The decision has been made: You [Tracy] have opted to start your career by joining an international accounting firm. But you can not help wondering if you have the right skills both for short and long-term success in public accounting.

Most students understand that accounting knowledge, organizational ability and interpersonal skills are critical to success in public accounting. But it is important for the beginner to realize that different skills are emphasized at different points in a public accountant's career.

Let us examine the duties and skills needed at each level—Staff Accountant (years 1-2), Senior Accountant (years 3-4), Manager/ Senior Manager (years 5-11) and Partner (years 11+).

Staff accountant—Enthusiastic learner

Let us travel with Tracy as she begins her career at the staff level. At the outset, she works directly under a senior accountant on each of her audits and is responsible for completing audits and administrative tasks assigned to her. Her duties include documenting work papers, interacting with client accounting staff, clerical tasks and discussing questions that arise with her senior. Tracy will work on different audit engagements during her first year and learn the firm's audit approach. She will be introduced to various industries and accounting systems.

The two most important traits to be demonstrated at the staff level are (1) a positive attitude and (2) the ability to learn quickly while adapting to unfamiliar situations.

Senior accountant—Organizer and teacher

As a senior accountant, Tracy will be responsible for the day-to-day management of several audit engagements during the year. She will plan the audits, oversee the performance of interim audit testing and direct year-end field work. She will also perform much of the final wrap-up work, such as preparing checklists, writing the management letter and reviewing or drafting the financial statements. Throughout this process, Tracy will spend a substantial amount of time instructing and supervising staff accountants.

The two most critical skills needed at the senior level are (1) the ability to organize and control an audit and (2) the ability to teach staff accountants how to audit.

Manager/senior manager—General manager and salesperson

Upon promotion to manager, Tracy will begin the transformation from auditor to executive. She will manage several audits at one time and become active in billing clients as well as negotiating audit fees. She will handle many important client meetings and closing conferences. Tracy will also become more involved in the firm's administrative tasks. Finally, outside of her client service and administrative duties, Tracy will be evaluated to a large extent on her community involvement and ability to assist the partners in generating new business for the firm.

The two skills most emphasized at the manager level are (1) general management ability and (2) sales and communication skills.

Partner—Leader and expert

As a partner in the firm, Tracy will have many broad responsibilities. She will engage in high-level client service activities, business development, recruiting, strategic planning, office administration and counseling. Besides serving as the engagement partner on several audits, she will have ultimate responsibility for the quality of service provided to each of her clients. Although a certain industry or administrative function will become her specialty, she will often be called upon to perform a wide variety of audit and administrative duties when other partners have scheduling conflicts. She will be expected to serve as a positive example to those who work for her and will train others in her areas of expertise.

At the partnership level, what is looked for is leadership ability plus the ability to become an expert in a specific industry or administrative function.

In the meantime

Those planning on a public accounting career should do more than just learn accounting. To develop the needed skills, a broad education background in business and nonbusiness courses is required plus participation in extracurricular activities that promote leadership and communication skills. It is never too early to start building the skills for long-term success.

Source: Dana R. Hermanson and Heather M. Hermanson, New Accountant, January 1990, pp. 24-26, © 1990, New DuBois Corporation.

The development of the personal computer (PC) in 1976 and its widespread use a decade later drastically changed the accounting systems of small and medium-sized businesses. The number and

quality of accounting software packages for PCs and the power of PCs quickly increased. Soon small and medium-sized businesses could maintain all accounting functions on a PC. By the 1990s, the cost of PCs and accounting software packages had decreased significantly, accounting software packages had become more user-friendly, and computer literacy had increased so much that many very small businesses converted from manual to computerized systems. However, some small business owners still use manual systems because they are familiar and meet their needs, and the persons keeping the records may not be computer literate.

Your knowledge of the basic manual accounting system described in these first four chapters enables you to better understand a computerized accounting system. The computer automatically performs some of the steps in the accounting cycle, such as posting journal entries to the ledger accounts, closing the books, and preparing the financial statements. However, if you understand all of the steps in the accounting cycle, you will better understand how to use the resulting data in decision making.

An accounting perspective: The impact of technology

Results from a recent survey of 1,400 chief financial officers (CFOs) indicate that tomorrow's accounting professionals will be called upon to bridge the gap between technology and business. With the rise of integrated accounting and information systems, technical expertise will go hand in hand with general business knowledge.

As we show in Exhibit 25, an **accounting system** is a set of records and the procedures and equipment used to perform the accounting functions. Manual systems consist of journals and ledgers on paper. Computerized accounting systems consist of accounting software, computer files, computers, and related peripheral equipment such as printers.

Regardless of the system, the functions of accountants include: (1) observing, identifying, and measuring economic events; (2) recording, classifying, and summarizing measurements; and (3) reporting economic events and interpreting financial statements. Both internal and external users tell accountants their information needs. The accounting system enables a company's accounting staff to supply relevant accounting information to meet those needs. As internal and external users make decisions that become economic events, the cycle of information, decisions, and economic events begins again.

The primary focus of the first four chapters has been on how you can use an accounting system to prepare financial statements. However, we also discussed how to use that information in making decisions. Later chapters also show how to prepare information and how that information helps users to make informed decisions. We have not eliminated the preparation aspects because we believe that the most informed users are ones who also understand how the information was prepared. These users understand not only the limitations of the information but also its relevance for decision making.

The next section discusses and illustrates the classified balance sheet, which aids in the analysis of the financial position of companies. One example of this analysis is the current ratio and its use in analyzing the short-term debt-paying ability of a company.

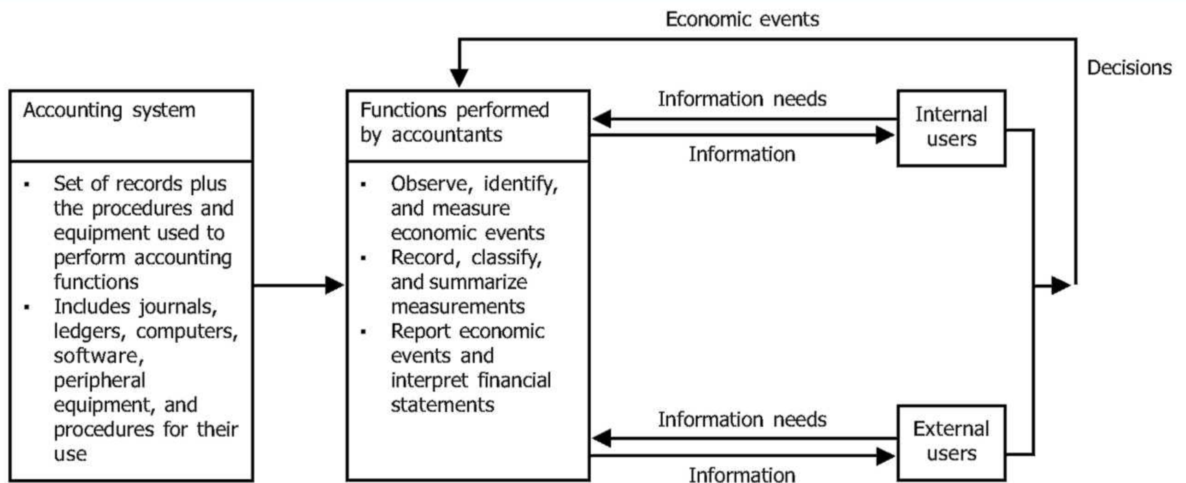


Exhibit 25: The role of an accounting system

An accounting perspective: Uses of technology

Accounting software packages are typically menu driven and organized into modules such as general ledger, accounts payable, accounts receivable, invoicing, inventory, payroll, fixed assets, job cost, and purchase order. For instance, general journal entries are made in the general ledger module, and this module contains all of the company's accounts. The accounts payable module records all transactions involving credit

purchases from suppliers and payments made to those suppliers. The accounts receivable module records all sales on credit to various customers and amounts received from customers.

5.9 A classified balance sheet

The balance sheets we presented so far have been unclassified balance sheets. As shown in Exhibit 23, an **unclassified balance sheet** has three major categories: assets, liabilities, and stockholders' equity. A **classified balance sheet** contains the same three major categories and subdivides them to provide useful information for interpretation and analysis by users of financial statements.

Exhibit 26, shows a slightly revised classified balance sheet for The Home Depot, Inc., and subsidiaries.[1] Note that The Home Depot classified balance sheet is in a vertical format (assets appearing above liabilities and stockholders' equity) rather than the horizontal format (assets on the left and liabilities and stockholders' equity on the right). The two formats are equally acceptable.

The Home Depot classified balance sheet subdivides two of its three major categories. The Home Depot subdivides its assets into current assets, property and equipment, long-term investments, long-term notes receivable, intangible assets (cost in excess of the fair value of net assets acquired), and other assets. The company subdivides its liabilities into current liabilities and long-term liabilities (including deferred income taxes). A later chapter describes minority interest. Stockholders' equity is the same in a classified balance sheet as in an unclassified balance sheet. Later chapters describe further subdivisions of the stockholders' equity section.

We discuss the individual items in the classified balance sheet later in the text. Our only purpose here is to briefly describe the items that can be listed under each category. Some of these items are not in The Home Depot's balance sheet.

1Founded in 1978, The Home Depot is America's largest home improvement retailer and ranks among the nation's 30 largest retailers. The company has more than 1,000 full-service warehouse stores. Their primary customers are do-it-yourselfers.

THE HOME DEPOT, INC. AND SUBSIDIARIES

Consolidated Balance Sheet

2001 January 28

(amounts in millions, except share data)

	January 28, 2001			
Assets				
Current Assets:				
Cash and Cash Equivalents	*$*	*167*		
Short-Term Investments, including current maturities of long-term investments		*10*		
Receivables, net		*835*		
Merchandise Inventories		*6,556*		
Other Current Assets		*209*		
Total Current Assets			*$*	*7,777*
Property and Equipment, at cost:				
Land	*$*	*4,230*		
Buildings		*6,167*		
Furniture, Fixtures and Equipment		*2,877*		
Leasehold Improvements		*665*		
Construction in Progress		*1,032*		
Capital Leases		*261*		
	$	*15,232*		
Less: Accumulated Depreciation and Amortization		*2,164*		
Net Property and Equipment	*$*	*13,068*		
Long-Term Investments		*15*		
Notes Receivable		*77*		
Cost in Excess of Fair Value of Net Assets Acquired, net of accumulated amortization of $41 at January 25, 2001 and $33 at January 30, 2000		*314*		
Other		*134*		*13,608*
Total assets			*$*	*21,385*
Liabilities and Stockholders' Equity				
Current Liabilities:				
Accounts Payable	*$*	*1,976*		
Accrued Salaries and Related Expenses		*627*		
Sales Taxes Payable		*298*		
Other Accrued Expenses		*1,402*		
Income Taxes Payable		*78*		
Current Installments of Long-Term Debt		*4*		
Total Current Liabilities				*$4,385*
Long-Term Debt, excluding current installments	*$*	*1,545*		
Other Long-Term Liabilities		*245*		
Deferred Income Taxes		*195*		*1,985*
Minority Interest				*11*
Stockholders' equity:				

Common Stock, par value $0.05. Authorized: 10,000,000,000 shares; issued and outstanding-		
2,323,747,000 shares at 2001 January 28 and 2,304,317,000 shares at 2000 January 30	*116*	
Paid-In Capital	*4,810*	
Retained Earnings	*10,151*	
Accumulated Other Comprehensive Income	*(67)*	
	15,010	
Less: Shares Purchased for Compensation Plans	*6*	
Total Stockholders' Equity		*15,004*
Total Liabilities and Stockholders' Equity		*$ 21,385*

Exhibit 26: A classified balance sheet

Current assets are cash and other assets that a business can convert to cash or uses up in a relatively short period—one year or one operating cycle, whichever is longer. An **operating cycle** is the time it takes to start with cash, buy necessary items to produce revenues (such as materials, supplies, labor, and/or finished goods), sell services or goods, and receive cash by collecting the resulting receivables. Companies in service industries and merchandising industries generally have operating cycles shorter than one year. Companies in some manufacturing industries, such as distilling and lumber, have operating cycles longer than one year. However, since most operating cycles are shorter than one year, the one-year period is usually used in identifying current assets and current liabilities. Common current assets in a service business include cash, marketable securities, accounts receivable, notes receivable, interest receivable, and prepaid expenses. Note that on a balance sheet, current assets are in order of how easily they are convertible to cash, from most liquid to least liquid.

Cash includes deposits in banks available for current operations at the balance sheet date plus cash on hand consisting of currency, undeposited checks, drafts, and money orders. Cash is the first current asset to appear on a balance sheet. The term cash normally includes cash equivalents.

Cash equivalents are highly liquid, short-term investments acquired with temporarily idle cash and easily convertible into a known cash amount. Examples are Treasury bills, short-term notes maturing within 90 days, certificates of deposit, and money market funds.

Marketable securities are temporary investments such as short-term ownership of stocks and bonds of other companies. Such investments do not qualify as cash equivalents. These investments earn additional money on cash that the business does not need at present but will probably need within one year.

Accounts receivable (also called trade accounts receivable) are amounts owed to a business by customers. An account receivable arises when a company performs a service or sells merchandise on credit. Customers normally provide no written evidence of indebtedness on sales invoices or delivery

tickets except their signatures. Notice the term net in the balance sheet of The Home Depot (Exhibit 26). This term indicates the possibility that the company may not collect some of its accounts receivable. In the balance sheet, the accounts receivable amount is the sum of the individual accounts receivable from customers shown in a subsidiary ledger or file.

Merchandise inventories are goods held for sale. Chapter 6 begins our discussion of merchandise inventories.

A **note** is an unconditional written promise to pay another party the amount owed either when demanded or at a certain specified date, usually with interest (a charge made for use of the money) at a specified rate. A note receivable appears on the balance sheet of the company to which the note is given. A note receivable arises (1) when a company makes a sale and receives a note from the customer, (2) when a customer gives a note for an amount due on an account receivable, or (3) when a company loans money and receives a note in return. Chapter 9 discusses notes at length.

Other current assets might include interest receivable and prepaid expenses. **Interest receivable** arises when a company has earned but not collected interest by the balance sheet date. Usually, the amount is not due until later. **Prepaid expenses** include rent, insurance, and supplies that have been paid for but all the benefits have not yet been realized (or consumed) from these expenses. If prepaid expenses had not been paid for in advance, they would require the future disbursement of cash. Furthermore, prepaid expenses are considered assets because they have service potential.

Long-term assets are assets that a business has on hand or uses for a relatively long time. Examples include property, plant, and equipment; long-term investments; and intangible assets.

Property, plant, and equipment are assets with useful lives of more than one year; a company acquires them for use in the business rather than for resale. (These assets are called property and equipment in The Home Depot's balance sheet.) The terms plant assets or fixed assets are also used for property, plant, and equipment. To agree with the order in the heading, balance sheets generally list property first, plant next, and equipment last. These items are fixed assets because the company uses them for long-term purposes. We describe several types of property, plant, and equipment next.

Land is ground the company uses for business operations; this includes ground on which the company locates its business buildings and that is used for outside storage space or parking. Land owned for investment is not a plant asset because it is a long-term investment.

Buildings are structures the company uses to carry on its business. Again, the buildings that a company owns as investments are not plant assets.

Office furniture includes file cabinets, desks, chairs, and shelves.

Office equipment includes computers, copiers, FAX machines, and phone answering machines.

Leasehold improvements are any physical alterations made by the lessee to the leased property when these benefits are expected to last beyond the current accounting period. An example is when the lessee builds room partitions in a leased building. (The lessee is the one obtaining the rights to possess and use the property.)

Construction in progress represents the partially completed stores or other buildings that a company such as The Home Depot plans to occupy when completed.

Accumulated depreciation is a contra asset account to depreciable assets such as buildings, machinery, and equipment. This account shows the total depreciation taken for the depreciable assets. On the balance sheet, companies deduct the accumulated depreciation (as a contra asset) from its related asset.

Long-term investments A **long-term investment** usually consists of securities of another company held with the intention of (1) obtaining control of another company, (2) securing a permanent source of income for the investor, or (3) establishing friendly business relations. The long-term investment classification in the balance sheet does not include those securities purchased for short-term purposes. For most businesses, long-term investments may be stocks or bonds of other corporations. Occasionally, long-term investments include funds accumulated for specific purposes, rental properties, and plant sites for future use.

Intangible assets Intangible assets consist of the noncurrent, nonmonetary, nonphysical assets of a business. Companies must charge the costs of intangible assets to expense over the period benefited. Among the intangible assets are rights granted by governmental bodies, such as patents and copyrights. Other intangible assets include leaseholds and goodwill.

A **patent** is a right granted by the federal government; it gives the owner of an invention the authority to manufacture a product or to use a process for a specified time.

A **copyright** granted by the federal government gives the owner the exclusive privilege of publishing written material for a specified time.

Leaseholds are rights to use rented properties, usually for several years.

Goodwill is an intangible value attached to a business, evidenced by the ability to earn larger net income per dollar of investment than that earned by competitors in the same industry. The ability to produce superior profits is a valuable resource of a business. Normally, companies record goodwill only at the time of purchase and then only at the price paid for it. The Home Depot has labeled its goodwill "cost in excess of the fair value of net assets acquired".

Accumulated amortization is a contra asset account to intangible assets. This account shows the total amortization taken on the intangible assets.

Current liabilities are debts due within one year or one operating cycle, whichever is longer. The payment of current liabilities normally requires the use of current assets. Balance sheets list current liabilities in the order they must be paid; the sooner a liability must be paid, the earlier it is listed. Examples of current liabilities follow.

Accounts payable are amounts owed to suppliers for goods or services purchased on credit. Accounts payable are generally due in 30 or 60 days and do not bear interest. In the balance sheet, the accounts payable amount is the sum of the individual accounts payable to suppliers shown in a subsidiary ledger or file.

Notes payable are unconditional written promises by the company to pay a specific sum of money at a certain future date. The notes may arise from borrowing money from a bank, from the purchase of assets, or from the giving of a note in settlement of an account payable. Generally, only notes payable due in one year or less are included as current liabilities.

Salaries payable are amounts owed to employees for services rendered. The company has not paid these salaries by the balance sheet date because they are not due until later.

Sales taxes payable are the taxes a company has collected from customers but not yet remitted to the taxing authority, usually the state.

Other accrued expenses might include taxes withheld from employees, income taxes payable, and interest payable. **Taxes withheld from employees** include federal income taxes, state income taxes, and social security taxes withheld from employees' paychecks. The company plans to pay these amounts to the proper governmental agencies within a short period. **Income taxes payable** are the taxes paid to the state and federal governments by a corporation on its income. **Interest payable** is interest that the company has accumulated on notes or bonds but has not paid by the balance sheet date because it is not due until later.

Dividends payable, or amounts the company has declared payable to stockholders, represent a distribution of income. Since the corporation has not paid these declared dividends by the balance sheet date, they are a liability.

Unearned revenues (revenues received in advance) result when a company receives payment for goods or services before earning the revenue, such as payments for subscriptions to a magazine. These unearned revenues represent a liability to perform the agreed services or other contractual requirements or to return the assets received.

Companies report any current installment on long-term debt due within one year under current liabilities. The remaining portion continues to be reported as a long-term liability.

Long-term liabilities are debts such as a mortgage payable and bonds payable that are not due for more than one year. Companies should show maturity dates in the balance sheet for all long-term liabilities. Normally, the liabilities with the earliest due dates are listed first.

Notes payable with maturity dates at least one year beyond the balance sheet date are long-term liabilities.

Bonds payable are long-term liabilities and are evidenced by formal printed certificates sometimes secured by liens (claims) on property, such as mortgages. Maturity dates should appear on the balance sheet for all major long-term liabilities.

The deferred income taxes on The Home Depot's balance sheet result from a difference between income tax expense in the accounting records and the income tax payable on the company's tax return.

Stockholders' equity shows the owners' interest in the business. This interest is equal to the amount contributed plus the income left in the business.

The items under stockholders' equity in The Home Depot's balance sheet are paid-in capital (including common stock) and retained earnings. **Paid-in capital** shows the capital paid into the company as the owners' investment. **Retained earnings** shows the cumulative income of the company less the amounts distributed to the owners in the form of dividends. Cumulative translation adjustments result from translating foreign currencies into US dollars (a topic discussed in advanced accounting courses). The unrealized loss on investments is discussed in Chapter 14.

The next section shows how two categories on the classified balance sheet relate to each other. Together they help reveal a company's short-term debt-paying ability.

5.10 Analyzing and using the financial results — the current ratio

The current ratio indicates the short-term debt-paying ability of a company. To find the **current ratio**, we divide current assets by current liabilities. For instance, Exhibit 26 shows that The Home Depot's current assets as of 2001 January 28, were USD 7,777,000,000 and its current liabilities were USD 4,385,000,000. Thus, its current ratio was: $\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$

$$\frac{\text{USD } 7{,}777{,}000{,}000}{\text{USD } 4{,}385{,}000{,}000} = 1.77:1$$

The current ratio of 1.77:1 for The Home Depot means that it has almost twice as many current assets as current liabilities. Because current liabilities are normally paid with current assets, the company appears to be able to pay its short-term obligations easily.

In evaluating a company's short-term debt-paying ability, you should also examine the quality of the current assets. If they include large amounts of uncollectable accounts receivable and/or obsolete

and unsalable inventory, even a 2:1 current ratio may be inadequate to allow the company to pay its current liabilities. The Home Depot undoubtedly does not have such a problem.

The current assets, current liabilities, and current ratios of some other companies as of the third quarter of 2001 were:

Current Company	Current Assets	Current Liabilities	Ratio
Wal-Mart Stores, Inc.	$ 32,620,000,000	$ 32,869,000,000	.99:1
Hewlett-Packard Company	15,782,000,000	13,950,000,000	1.13:1
3M Corporation	6,556,000,000	5,006,000,000	1.31:1
General Electric Company	313,050,000,000	168,788,000,000	1.85:1
Johnson & Johnson	19,079,000,000	7,504,000,000	2.54:1

We described each of these companies earlier in the text.

As you can see from these comparisons, the current ratios vary a great deal. An old rule of thumb is that the current ratio should be at least 2:1. However, what constitutes an adequate current ratio depends on available lines of credit, the cash-generating ability of the company, and the nature of the industry in which the company operates. For instance, companies in the airline industry are able to generate huge amounts of cash on a daily basis and may be able to pay their current liabilities even if their current ratio is less than 1:1. Comparing a company's current ratio with other companies in the same industry makes sense because all of these companies face about the same economic conditions. A company with the lowest current ratio in its industry may be unable to pay its short-term obligations on a timely basis, unless it can borrow funds from a bank on a line of credit. A company with the highest current ratio in its industry may have on hand too many current assets, such as cash and marketable securities, which could be invested in more productive assets.

The next chapter describes the assumptions, concepts, and principles that constitute the accounting theory underlying financial accounting. Thus, accounting theory dictates the standards and procedures applied to the reporting of financial information in the financial statements.

5.11 Understanding the learning objectives

- Analyze transactions by examining source documents.
- Journalize transactions in the journal.
- Post journal entries to the accounts in the ledger.
- Prepare a trial balance of the accounts and complete the work sheet.
- Prepare financial statements.
- Journalize and post adjusting entries.
- Journalize and post closing entries.
- Prepare a post-closing trial balance.

- The work sheet is a columnar sheet of paper on which accountants summarize information needed to make the adjusting and closing entries and to prepare the financial statements.
- Work sheets may vary in format. The work sheet illustrated in the chapter has 12 columns—two each for trial balance, adjustments, adjusted trial balance, income statement, statement of retained earnings, and balance sheet.
- The information needed to prepare the income statement is in the Income Statement columns of the work sheet. Net income for the period is the amount needed to balance the two Income Statement columns in the work sheet.
- The information needed to prepare the statement of retained earnings is in the Statement of Retained Earnings columns of the work sheet. The ending Retained Earnings balance is carried forward to the balance sheet.
- The information needed to prepare the balance sheet is in the Balance Sheet columns of the work sheet.
- As explained in Chapter 3, adjusting entries are necessary to bring the accounts to their proper balances before preparing the financial statements. Closing entries are necessary to reduce the balances of revenue, expense, and Dividends accounts to zero so they are ready to receive data for the next accounting period.
- Revenue accounts are closed by debiting them and crediting the Income Summary account.
- Expense accounts are closed by crediting them and debiting the Income Summary account.
- The balance in the Income Summary account represents the net income or net loss for the period.
- To close the Income Summary account, the balance is transferred to the Retained Earnings account.
- To close the Dividends account, the balance is transferred to the Retained Earnings account.
- Only the balance sheet accounts have balances and appear on the post-closing trial balance.
- All revenue, expense, and Dividends accounts have zero balances and are not included in the post-closing trial balance.
- Manual systems and computerized systems perform the same accounting functions.
- The ease of accounting with a PC has encouraged even small companies to convert to computerized systems.
- A classified balance sheet subdivides the major categories on the balance sheet. For instance, a classified balance sheet subdivides assets into current assets; long-term investments; property, plant, and equipment; and intangible assets. It subdivides liabilities into current

liabilities and long-term liabilities. Later chapters show more accounts in the stockholders' equity section, but the subdivisions remain basically the same.

- The current ratio gives some indication of the short-term debt-paying ability of a company.
- To find the current ratio, divide current assets by current liabilities.

5.11.1 Demonstration problem

This problem involves using a work sheet for Green Hills Riding Stable, Incorporated, for the month ended 2010 July 31, and performing the closing process. The trial balance for Green Hills Riding Stable, Incorporated, as of 2010 July 31, was as follows:

GREEN HILLS RIDING STABLE, INCORPORATED
Trial Balance
2010 July 31

Acct. No.	Account Title	Debits	Credits
100	*Cash*	*$ 10,700*	
103	*Accounts Receivable*	*8,100*	
130	*Land*	*40,000*	
140	*Buildings*	*24,000*	
200	*Accounts Payable*		*$ 1,100*
201	*Notes Payable*		*40,000*
300	*Capital Stock*		*35,000*
310	*Retained Earnings, 2010 July 1*		*3,100*
320	*Dividends*	*1,000*	
402	*Horse Boarding Fees Revenue*		*4,500*
404	*Riding Lesson Fees Revenue*		*3,600*
507	*Salaries Expense*	*1,400*	
513	*Feed Expense*	*1,100*	
540	*Interest Expense*	*200*	
568	*Miscellaneous Expense*	*800*	
		$ 87,300	$87,300

Depreciation expense for the month is USD 200. Accrued salaries on July 31 are USD 300.

a. Prepare a 12-column work sheet for the month ended 2010 July 31.

b. Journalize the adjusting entries.

c. Journalize the closing entries.

5.11.2 Solution to demonstration problem

a. See the work sheet below.

GREEN HILLS RIDING STABLE, INCORPORATE
Work Sheet
For the Month Ended 2010 July 31

Acct.	Account Titles	Trial Balance		Adjustments		Adjusted Balance		Income Statement		Statement of Retained Earnings		Balance Sheet	
No.		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
100	Cash	10,700				10,700						10,700	
103	Accounts Receivable	S,100				3,100						8,100	
130	Land	40,000				40,000						40,000	
140	Buildings	24,000				24,000						24,000	
200	Accounts Payable		1,100				1,100						1,100
201	Notes Payable		40,000				40,0 0 0						40,000
300	Capital Stock		35,000				35,000						35,000
310	Retained Earnings 2010 July 1		3,100				3,100				3,100		
320	Dividends	1,000				1,000				1,000			
402	Horse Boarding Fees Revenue		4,500				4,500		4,500				
404	Riding and Lesson Fees Revenue		3,500				3,600		3,600				
507	Salaries Expense	1,400		(2) 300		1,700		1,700					
513	Feed Expense	1,100				1,100		1,100					
540	Interest Expense	200				200		200					
563	Miscellaneous Expense	300				S00		S00					
		87,300	37,300										
520	Depreciation Expense —Buildings			(1) 200		200		200					
141	Accumulated Depreciation-Buildings				(1) 200		200						200
206	Salaries Payable				(2) 300		300						300
				E00	5oo	87,500	37,300						
								4,000	8,100				
	Net Income							4,100			4,100		
								8,100	8,100	1,000	7,200	82,300	76,600
	Retained Earnings, 2010 July 31									6,200			6,200
										7,200	7,200	S2,S00	32,800

Adjustments:

(i) *To record depreciation of building* **for** *July.*

(2) *To record accrued salaries of $300.*

b.

GREEN HILLS RIDING STABLE, INCORPORATED

General Journal **Page 4**

Date		Account Titles and Explanation	Post. Ref.	Debt	Credit
2010		Adjusting Entries			
July	31	Depredation Expense—Buildings (-SE)	520	2 0 0	
		Accumulated Depreciation—Buildings (-A)	141		2 0 0
		To record depreciation expense.			
	31	Salaries Expense (-SE)	507	3 0 0	
		Salaries Payable (+L)	206		3 0 0
		To record accrued salaries.			

c.

GREEN HILLS RIDING STABLE, INCORPORATED

General Journal Page 4

Date		Account Titles and Explanation	Post. Ref.	Debt	Credit
2010		Closing Entries			
July	31	Horse Boarding Fees Revenue	402	4 5 0 0	
		Riding Lesson Fees Revenue	404	3 6 0 0	
		Income Summary	600		8 1 0 0
		To close revenue accounts.			
	31	Income Summary	600	4 0 0 0	
		Salaries Expense	507		1 7 0 0
		Feed Expense	513		1 1 0 0
		Interest Expense	540		2 0 0
		Miscellaneous Expense	568		8 0 0
		Depreciation Expense—Buildings	520		2 0 0
		To close expense accounts.			
	31	Income Summary	600	4 1 0 0	
		Retained Earnings	310		4 1 0 0
		To close Income Summary account.			
	31	Retained Earnings	310	1 0 0 0	
		Dividends	320		1 0 0 0
		To close dividends account.			

5.11.3 Key terms*

Accounting cycle Series of steps performed during the accounting period to analyze, record, classify, summarize, and report useful financial information for the purpose of preparing financial statements. The steps include analyzing transactions, journalizing transactions, posting journal entries, taking a trial balance and completing the work sheet, preparing financial statements, journalizing and posting adjusting entries, journalizing and posting closing entries, and taking a post-closing trial balance.

Accounting system A set of records and the procedures and equipment used to perform accounting functions.

Accounts payable Amounts owed to suppliers for goods or services purchased on credit.

Accounts receivable Amounts due from customers for services performed or merchandise sold on credit.

Accumulated amortization A contra account to intangible assets.

Accumulated depreciation A contra account to depreciable assets such as buildings, machinery, and equipment.

Bonds payable Written promises to pay a definite sum at a certain date as evidenced by formal printed certificates that are sometimes secured by liens on property, such as mortgages.

Buildings Structures used to carry on the business.

Cash Includes deposits in banks available for current operations at the balance sheet date plus cash on hand consisting of currency, undeposited checks, drafts, and money orders.

Cash equivalents Highly liquid, short-term investments acquired with temporarily idle cash.

Classified balance sheet Subdivides the three major balance sheet categories (assets, liabilities, and stockholders' equity) to provide more information for users of financial statements. Assets may be divided into current assets; long-term investments; property, plant, and equipment; and intangible assets. Liabilities may be divided into current liabilities and long-term liabilities.

Closing process The act of transferring the balances in the revenue and expense accounts to a clearing account called Income Summary and then to the Retained Earnings account. The balance in the Dividends account is also transferred to the Retained Earnings account.

Construction in progress Represents the partially completed stores or other buildings that a company plans to occupy when completed.

Copyright Grants the owner the exclusive privilege of publication of written material for a specific time.

Current assets Cash and other assets that a business can convert into cash or use up in one year or one operating cycle, whichever is longer.

Current liabilities Debts due within one year or one operating cycle, whichever is longer. The payment of current liabilities normally requires the use of current assets.

Current ratio Calculated by dividing current assets by current liabilities.

Dividends payable Amounts declared payable to stockholders and that represent a distribution of income.

Goodwill An intangible value attached to a business, evidenced by the ability to earn larger net income per dollar of investment than that earned by competitors in the same industry.

Income Summary account A clearing account used only at the end of an accounting period to summarize revenues and expenses for the period.

Income taxes payable Are the taxes payable to the state and federal governments by a corporation based on its income.

Intangible assets Noncurrent, nonmonetary, nonphysical assets of a business.

Interest payable Interest that has accumulated on debts, such as notes or bonds. This accrued interest has not been paid at the balance sheet date because it is not due until later.

Interest receivable Arises when interest has been earned but not collected at the balance sheet date.

Land Ground the company uses for business operations. Land could include ground on which the company locates its business buildings and that used for outside storage space or a parking lot.

Leasehold improvements Are any physical alterations made by the lessee to the leased property when these benefits are expected to last beyond the current accounting period.

Leaseholds Rights to use rented properties.

Long-term assets Assets that are on hand or used by a business for a relatively long time. Examples include long-term investments; property, plant, and equipment; and intangible assets.

Long-term investment Usually securities of another company held with the intention of (1) obtaining control of another company, (2) securing a permanent source of income for the investor, or (3) establishing friendly business relations.

Long-term liabilities Debts such as a mortgage payable and bonds payable that are not due for more than one year.

Marketable securities Temporary investments that a company makes to earn a return on idle cash.

Merchandise inventory Goods held for sale.

Note An unconditional written promise to pay to another party the amount owed either when demanded or at a certain date.

Notes payable Unconditional written promises by a company to pay a specific sum of money at a certain future date.

Office equipment Includes computers, copiers, FAX machines, and phone answering machines.

Office furniture Includes file cabinets, desks, chairs, and shelves.

Operating cycle The time it takes to start with cash, buy necessary items to produce revenues (such as materials, supplies, labor, and/or inventories), sell services or goods, and receive cash by collecting the resulting receivables.

Paid-in capital Shows the capital paid into the company as the owners' investment.

Patent A right granted by the federal government authorizing the owner of an invention to manufacture a product or to use a process for a specific time.

Post-closing trial balance A trial balance taken after the closing entries have been posted.

Prepaid expenses Assets awaiting assignment to expense. Items such as rent, insurance, and supplies that have been paid for but from which all of the benefits have not yet been realized (or consumed). Prepaid expenses are classified as current assets.

Property, plant, and equipment Assets with useful lives of more than one year that a company acquired for use in a business rather than for resale; also called plant assets or fixed assets.

Retained earnings Shows the cumulative income of the company less the amounts distributed to the owners in the form of dividends.

Salaries payable Amounts owed to employees for services rendered.

Sales taxes payable Are taxes a company has collected from customers but has not remitted to the taxing authority, usually the state.

Stockholders' equity Shows the owners' interest (equity) in the business.

Taxes withheld from employees Items such as federal income taxes, state income taxes, and social security taxes withheld from employees' paychecks.

Unclassified balance sheet A balance sheet showing only three major categories: assets, liabilities, and stockholders' equity.

Unearned revenues (revenues received in advance) Result when payment is received for goods or services before revenue has been earned.

Work sheet A columnar sheet of paper on which accountants have summarized information needed to make the adjusting and closing entries and to prepare the financial statements.

*Some of these terms have been defined in earlier chapters but are included here for your convenience.

5.11.4 Self-test

5.11.4.1 True-false

Indicate whether each of the following statements is true or false.

- At the end of the accounting period, three trial balances are prepared.
- The amounts in the Adjustments columns are always added to the amounts in the Trial Balance columns to determine the amounts in the Adjusted Trial Balance columns.
- If a net loss occurs, it appears in the Income Statement credit column and Statement of Retained Earnings debit column.
- After the closing process is complete, no balance can exist in any revenue, expense, Dividends, or Income Summary account.
- The post-closing trial balance may contain revenue and expense accounts.
- All accounting systems currently in use are computerized.

5.11.4.2 Multiple-choice

Select the best answer for each of the following questions.

- Which of the following accounts is least likely to be adjusted on the work sheet?
    - Supplies on Hand.
    - Land.
    - Prepaid Rent.

- Unearned Delivery Fees.

- If the Balance Sheet columns do not balance, the error is most likely to exist in the:
  - General journal.
  - General ledger.
  - Last six columns of the work sheet.
  - First six columns of the work sheet.
- Net income for a period appears in all but which one of the following?
  - Income Statement debit column of the work sheet.
  - Statement of Retained Earnings credit column of the work sheet.
  - Statement of retained earnings.
  - Balance sheet.
- Which of the following statements is false regarding the closing process?
  - The Dividends account is closed to Income Summary.
  - The closing of expense accounts results in a debit to Income Summary.
  - The closing of revenues results in a credit to Income Summary.
  - The Income Summary account is closed to the Retained Earnings account.
- Which of the following statements is true regarding the classified balance sheet?
  - Current assets include cash, accounts receivable, and equipment.
  - Plant, property, and equipment is one category of long-term assets.
  - Current liabilities include accounts payable, salaries payable, and notes receivable.
  - Stockholders' equity is subdivided into current and long-term categories.

Now turn to “Answers to self-test” at the end of the chapter to check your answers.

5.11.4.3 Questions

- At which stage of the accounting cycle is a work sheet usually prepared?
- Why are the financial statements prepared before the adjusting and closing entries are journalized and posted?
- Describe the purposes for which the work sheet is prepared.
- You have taken over a set of accounting books for a small business as a part-time job. At the end of the first accounting period, you have partially completed the work sheet by entering the proper ledger accounts and balances in the Trial Balance columns. You turn to the manager and ask, "Where is the list of additional information I can use in entering

the adjusting entries?" The manager indicates there is no such list. (In all the text problems you have done, you have always been given this information.) How would you obtain the information for this real-life situation? What are the consequences of not making all of the required adjustments at the end of the accounting period?

- How are the amounts in the Adjusted Trial Balance columns of a work sheet determined?
- The work sheet for Bridges Company shows net income of USD 40,000. The following four adjustments were ignored:
  - Subscriptions Fees earned, USD 1,200.
  - Depreciation of equipment, USD 4,000.
  - Depreciation of building, USD 10,000.
  - Salaries accrued, USD 3,000. What is the correct net income?
- After the Adjusted Trial Balance columns of a work sheet have been totaled, which account balances are extended to the Income Statement columns, which account balances are extended to the Statement of Retained Earnings columns, and which account balances are extended to the Balance Sheet columns?
- How is the statement of retained earnings prepared?
- What is the purpose of closing entries? What accounts are not affected by closing entries?
- A company has net income of USD 50,000 for the year. In which columns of the work sheet would net income appear?
- Is it possible to prepare monthly financial statements without journalizing and posting adjusting and closing entries? How?
- What is the purpose of a post-closing trial balance?
- Describe some of the ways in which the manual accounting system has evolved.
- When did computerized accounting systems come into use?
- Define an accounting system.
- How is a classified balance sheet different than an unclassified balance sheet?
- **Real world question** Refer to "A broader perspective: Skills for the long haul" to answer the following true-false questions:
  - The same skills are needed at each level in a CPA firm.
  - The two most important traits at the staff accountant level are a positive attitude and the ability to learn quickly while adapting to unfamiliar situations.

- The senior accountant needs management skills in addition to technical skills.
- Partners become increasingly involved in technical matters and have less and less interaction with people.

- **Real world question** Referring to the Annual report appendix in your text, identify the classifications (or categories) of assets used by The Limited in its balance sheet.
- **Real world question** Referring to the Annual report appendix in your text, identify the classifications (or categories) of liabilities used by The Limited in its balance sheet.

5.11.4.4 Exercises

Exercise A List the steps in the accounting cycle. Would the system still work if any of the steps were performed out of order?

Exercise B Three of the major column headings on a work sheet are Trial Balance, Income Statement, and Balance Sheet. Determine under which major column headings each of the following items would appear and whether it would be a debit or credit. (For example, Cash would appear on the debit side of the Trial Balance and Balance Sheet columns.)

		Trial Balance		Income Statement		Statement of Retained Earnings		Balance Sheet	
	Account Titles	**Debit**	**Credit**	**Debit**	**Credit**	**Debit**	**Credit**	**Debit**	**Credit**
a.	*Accounts Receivable*								
b.	*Accounts Payable*								
c.	*Interest Revenue*								
d.	*Advertising Expense*								
e.	*Capital Stock*								
f.	*Retained Earnings (Beg.)*								
g.	*Net income for the month*								
h.	*Retained Earnings (End)*								

Exercise C Assume a beginning balance in Retained Earnings of USD 84,000 and net income for the year of USD 36,000. Illustrate how these would appear in the Statement of Retained Earnings columns and Balance Sheet columns in the work sheet.

Exercise D In the previous exercise, if there was a debit balance of USD 216,000 in the Retained Earnings account as of the beginning of the year and a net loss of USD 192,000 for the year, show how these would be treated in the work sheet.

Exercise E Damon Davis was preparing the work sheet for Drano Plumbing Company. He calculated the net income to be USD 50,000. When he totaled the Balance Sheet columns, the column totals were debit, USD 400,000; and credit, USD 300,000. What was the probable cause of this difference? If this was not the cause, what should he do to find the error?

Exercise F The Trial Balance of the Printer Repair Company at 2010 December 31, contains the following account balances listed in alphabetical order to increase your skill in sorting amounts to the proper work sheet columns.

Printer Repair Company
Trial Balance Account Balances
2010 December 31

Accounts Payable	*$ 41,000*
Accounts Receivable	*92,000*
Accumulated Depreciation—Buildings	*25,000*
Accumulated Depreciation—Equipment	*9,000*
Buildings	*140,000*
Capital Stock	*65,000*
Cash	*60,000*
Equipment	*36,000*
Prepaid Insurance	*3,600*
Retained Earnings, 2010 January 1	*4,800*
Salaries Expense	*96,000*
Service Revenue	*290,000*
Supplies on Hand	*4,000*
Utilities Expense	*3,200*

Using these account balances and the following additional information, prepare a work sheet for Printer Repair Company. Arrange the accounts in their approximate usual order.

- Supplies on hand at 2010 December 31, have a cost of USD 2,400.
- The balance in the Prepaid Insurance account represents the cost of a two-year insurance policy covering the period from 2010 January 1, through 2011 December 31.
- The estimated lives of depreciable assets are buildings, 40 years, and equipment, 20 years. No salvage values are anticipated.

Exercise G Texban Corporation had a 2010 January 1, balance in its Retained Earnings account of USD 90,000. For the year 2010, net income was USD 50,000 and dividends declared and paid were USD 24,000. Prepare a statement of retained earnings for the year ended 2010 December 31.

Exercise H Rubino Company reported net income of USD 100,000 for the current year. Examination of the work sheet and supporting data indicates that the following items were ignored:

- Accrued salaries were USD 6,000 at December 31.
- Depreciation on equipment acquired on July 1 amounted to USD 4,000.

Based on this information, (a) what adjusting journal entries should have been made at December 31, and (b) what is the correct net income?

Exercise I Refer to the work sheet prepared in the Printer Repair Company exercise. Prepare the adjusting and closing journal entries.

Exercise J The Income Statement column totals on a work sheet prepared at 2010 December 31, are debit, USD 500,000; and credit, USD 900,000. In T-account format, show how the postings to the Income Summary account would appear as a result of the closing process. Identify what each posting represents.

Exercise K After adjustment, these selected account balances of Cold Stream Campground are:

	Debits	**Credits**
Retained earnings		$540,000.00
Rental revenue		960000
Salaries expense	$336,000.00	
Depreciated expense – Buildings	64000	
Utilities expense	208000	
Dividends	32000	

In T-account format, show how journal entries to close the books for the period would be posted. (You do not need to show the closing journal entries.) Enter these balances in the accounts before doing so. Key the postings from the first closing entry with the number (1), the second with the number (2), and so on.

Exercise L The following account balances appeared in the Income Statement columns of the work sheet entries prepared for Liu Company for the year ended 2010 December 31:

Account Titles	**Income Statement**	
	Debit	**Credit**
Service Revenue		*330,000*
Advertising Expense	*1,350*	
Salaries Expense	*130,000*	
Utilities Expense	*2,250*	
Insurance Expense	*900*	
Rent Expense	*6,750*	
Supplies Expense	*2,250*	
Depreciation Expense—Equipment	*4,500*	
Interest Expense	*562*	
Interest Revenue		*1,125*
	148,552	*331,125*
Net Income	*182,553*	
	331,125	*331,125*

Prepare the closing journal entries.

Exercise M Which of the following accounts are likely to appear in the post-closing trial balance for the Blake Company?

- Accounts Receivable
- Cash
- Service Revenue
- Buildings
- Salaries Expense
- Capital Stock
- Dividends
- Accounts Payable
- Income Summary
- Unearned Subscription Fees

Exercise N Using the legend at the right, determine the category (number) into which you would place each of these items.

	Item		Legend
a.	*Land.*	*1.*	*Current assets.*
b.	*Marketable securities.*	*2.*	*Long-term investments.*
c.	*Notes payable, due in three years.*	*3.*	*Property, plant, and equipment.*
d.	*Taxes withheld from employees.*	*4.*	*Intangible assets.*
e.	*Patents.*	*5.*	*Current liabilities.*
f.	*Retained earnings.*	*6.*	*Long-term liabilities.*
g.	*Unearned subscription fees.*	*7.*	*Stockholders' equity.*
h.	*Bonds of another corporation (a 20-year investment).*		
i.	*Notes payable, due in six months.*		
j.	*Accumulated depreciation.*		

Exercise O The following data are from the 2001 annual report of The Procter & Gamble Company and its subsidiaries. This company markets a broad range of laundry, cleaning, paper, beauty care, health care, food, and beverage products in more than 140 countries around the world. Leading brands include Ariel, Crest, Pampers, Pantene, Crisco, Vicks, and Max Factor. The dollar amounts are in millions.

	June 30	
	2001	**2000**
Current assets	*$10,889*	*$10,146*
Current liabilities	*9,846*	*10,141*

Calculate the current rations for the two years. Comment on whether the trend is favorable or unfavorable.

5.11.4.5 Problems

Problem A The following adjusted trial balance is for Jasper Appliance Repair Company:

JASPER APPLIANCE REPAIR COMPANY Adjusted Trial Balance 2010 June 30		
	Debits	**Credits**
Cash	*$ 63,000*	
Accounts Receivable	*42,000*	
Trucks	*110,000*	
Accumulated Depreciation—Trucks		*$ 30,000*
Accounts Payable		*10,800*
Notes Payable		*20,000*
Capital Stock		*50,000*
Retained Earnings, 2009 July 1		*5,500*
Dividends	*10,000*	
Service Revenue		*230,000*
Rent Expense	*12,000*	
Advertising Expense	*5,000*	
Salaries Expense	*90,000*	
Supplies Expense	*1,500*	
Insurance Expense	*1,200*	
Depreciation Expense—Trucks	*10,000*	
Interest Expense	*1,000*	
Miscellaneous Expense	*600*	
	$346,300	*$346,300*

Prepare the closing journal entries at the end of the fiscal year, 2010 June 30.

Problem B The adjusted trial balance for Denver Architects , Inc., follows:

DENVER ARCHITECTS, INC.		
Adjusted Trial Balance		
2010 December 31		
	Debits	**Credits**
Cash	*$ 90,000*	
Accounts Receivable	*20,000*	
Interest Receivable	*200*	
Notes Receivable	*4,000*	
Prepaid Insurance	*960*	
Prepaid Rent	*2,400*	
Supplies on Hand	*600*	
Equipment	*60,000*	
Accumulated Depreciation—Equipment		*$ 12,500*
Buildings	*140,000*	
Accumulated Depreciation—Buildings		*15,000*
Land	*56,240*	
Accounts Payable		*60,000*
Notes Payable		*10,000*
Interest Payable		*750*
Salaries Payable		*7,000*
Capital Stock		*100,000*
Retained Earnings, 2010 January 1		*20,200*
Dividends	*40,000*	
Service Revenue		*360,000*
Insurance Expense	*1,920*	
Rent Expense	*9,600*	
Advertising Expense	*1,200*	
Depreciation Expense—Equipment	*2,500*	
Depreciation Expense—Buildings	*3,000*	
Supplies Expense	*2,280*	
Salaries Expense	*150,000*	
Interest Expense	*750*	
Interest Revenue		*200*
	$ 585,650	*$ 585,650*

a. Prepare an income statement.

b. Prepare a statement of retained earnings.

c. Prepare a classified balance sheet.

d. Prepare the closing journal entries.

e. Show the post-closing trial balance assuming you had posted the closing entries to the general ledger.

Problem C The following trial balance and additional data are for Sure Sale Reality Company

SURE SALE REALTY COMPANY Trial Balance 2010 December 31		
	Debits	**Credits**
Cash	*$ 62,800*	
Accounts Receivable	*117,120*	
Prepaid Rent	*46,080*	
Equipment	*173,760*	
Accumulated Depreciation—Equipment		*$ 21,120*
Accounts Payable		*62,400*
Capital Stock		*96,000*
Retained Earnings, 2010 January 1		*49,920*
Dividends	*46,080*	
Commissions Revenue		*653,200*
Salaries Expense	*321,600*	
Travel Expense	*96,480*	
Miscellaneous Expense	*18,720*	
	$ 882,640	*$ 882,640*

The prepaid rent is for the period 2010 July 1, to 2011 June 30.

The equipment has an expected life of 10 years with no salvage value.

Accrued salaries are USD 11,520.

Travel expenses accrued but unreimbursed to sales staff at December 31 were USD 17,280

a. Prepare a 12-column work sheet for the year ended 2010 December 31. You need not include account numbers or explanations of adjustments.

b. Prepare adjusting journal entries.

c. Prepare closing journal entries.

Problem D The following trial balance and additional data are for South Sea Tours, Inc.:

SOUTH SEA TOURS, INC. Trial Balance 2010 December 31		
	Debits	**Credits**
Cash	*$ 109,050*	
Accounts Receivable	*133,750*	
Prepaid Insurance	*4,350*	
Prepaid Advertising	*18,000*	
Notes Receivable	*11,250*	
Land	*90,000*	
Buildings	*165,000*	
Accumulated Depreciation—Buildings		*$ 49,500*
Office Equipment	*83,400*	
Accumulated Depreciation—Office Equipment		*16,680*
Accounts Payable		*56,850*
Notes Payable		*75,000*
Capital Stock		*240,000*
Retained Earnings, 2010 January 1		*47,820*
Dividends	*30,000*	
Service Revenue		*368,350*
Salaries Expense	*96,000*	
Travel Expense	*111,000*	
Interest Revenue		*600*
Interest Expense	*3,000*	
	$ 854,800	*$ 854,800*

The company consistently followed the policy of initially debiting all prepaid items to asset accounts.

The buildings have an expected life of 50 years with no salvage value.

The office equipment has an expected life of 10 years with no salvage value.

Accrued interest on notes receivable is USD 450.

Accrued interest on the notes payable is USD 1,000.

Accrued salaries are USD 2,100.

Expired prepaid insurance is USD 3,750.

Expired prepaid advertising is USD 16,500.

a. Prepare a 12-column work sheet for the year ended 2010 December 31. You need not include account numbers. Briefly explain the entries in the Adjustments columns at the bottom of the work sheet, as was done in Exhibit 20.

b. Prepare the required closing entries.

Problem E The following trial balance and additional data are for Florida Time-Share Property Management Company:

FLORIDA TIME-SHARE PROPERTY MANAGEMENT COMPANY
Trial Balance
2010 December 31

	Debits	**Credits**
Cash	*$ 424,000*	
Prepaid Rent	*28,800*	
Prepaid Insurance	*7,680*	
Supplies on Hand	*2,400*	
Office Equipment	*24,000*	
Accumulated Depreciation—Office Equipment		*$ 5,760*
Automobiles	*64,000*	
Accumulated Depreciation—Automobiles		*16,000*
Accounts Payable		*2,880*
Unearned Management Fees		*12,480*
Capital Stock		*360,000*
Retained Earnings, 2010 January 1		*120,640*
Dividends	*28,000*	
Commissions Revenue		*260,000*
Management Fee Revenue		*19,200*
Salaries Expense	*199,840*	
Advertising Expense	*2,400*	
Gas and Oil Expense	*14,240*	
Miscellaneous Expense	*1,600*	
	$ 796,960	*$ 796,960*

Insurance expense for the year, USD 3,840.

Rent expense for the year, USD 19,200.

Depreciation expense: office equipment, USD 2,880; and automobiles, USD 12,800.

Salaries earned but unpaid at December 31, USD 26,640.

Supplies on hand at December 31, USD 1,000.

The unearned management fees were received and recorded on 2010 November 1. The advance payment covered six months' management of an apartment building.

a. Prepare a 12-column work sheet for the year ended 2010 December 31. You need not include account numbers or explanations of adjustments.

b. Prepare an income statement.

c. Prepare a statement of retained earnings.

d. Prepare a classified balance sheet.

e. Prepare adjusting and closing entries.

5.11.4.6 Alternate problems

Alternate problem A The following adjusted trial balance is for Dream Home Realty Company:

DREAM HOME REALTY COMPANY

Adjusted Trial Balance

2010 June 30

	Debits	**Credits**
Cash	*$ 98,000*	
Accounts Receivable	*40,000*	
Office Equipment	*35,000*	
Accumulated Depreciation—Office Equipment		*$ 14,000*
Automobiles	*40,000*	
Accumulated Depreciation—Automobiles		*20,000*
Accounts Payable		*63,000*
Capital Stock		*75,000*
Retained Earnings, 2009 July 1		*54,700*
Dividends	*5,000*	
Commissions Revenue		*170,000*
Salaries Expense	*25,000*	
Commissions Expense	*120,000*	
Gas and Oil Expense	*4,000*	
Rent Expense	*14,800*	
Supplies Expense	*1,400*	
Utilities Expense	*2,000*	
Depreciation Expense—Office Equipment	*3,500*	
Depreciation Expense—Automobiles	*8,000*	
	$ 396,700	*$ 396,700*

Prepare the closing journal entries at the end of the fiscal year, 2010 June 30.

Alternate problem B The adjusted trial balance for Penrod Insurance Consultants, Inc., follows:

Penrod Insurance Consultants, Inc.
Adjusted Trial Balance
2010 December 31

	Debits	**Credits**
Cash	*$ 107,200*	
Accounts Receivable	*68,000*	
Interest Receivable	*400*	
Notes Receivable	*20,000*	
Prepaid Insurance	*2,400*	
Supplies on Hand	*1,800*	
Land	*32,000*	
Buildings	*190,000*	
Accumulated Depreciation—Buildings		*$ 40,000*
Office Equipment	*28,000*	
Accumulated Depreciation—Office Equipment		*8,000*
Accounts Payable		*48,000*
Salaries Payable		*8,500*
Interest Payable		*900*
Notes Payable (due 2011)		*64,000*
Capital Stock		*120,000*
Retained Earnings, 2010 January 1		*42,800*
Dividends	*40,000*	
Commissions Revenue		*392,520*
Advertising Expense	*24,000*	
Commissions Expense	*75,440*	
Travel Expense	*12,880*	
Depreciation Expense—Buildings	*8,500*	
Salaries Expense	*98,400*	
Depreciation Expense—Office Equipment	*2,800*	
Supplies Expense	*3,800*	
Insurance Expense	*3,600*	
Repairs Expense	*1,900*	
Utilities Expense	*3,400*	
Interest Expense	*1,800*	
Interest Revenue		*1,600*
	$ 726,320	*$ 726,320*

a. Prepare an income statement for the year ended 2010 December 31.

b. Prepare a statement of retained earnings.

c. Prepare a classified balance sheet.

d. Prepare the closing journal entries.

e. Show the post-closing trial balance assuming you had posted the closing entries to the general ledger.

Alternate problem C The following trial balance and additional data are for Ramon Data Processing Company:

RAMON DATA PROCESSING COMPANY		
Trial Balance		
2010 December 31		
	Debits	**Credits**
Cash	*$ 76,000*	
Accounts Receivable	*98,000*	
Prepaid Rent	*7,200*	
Prepaid Insurance	*2,400*	
Equipment	*80,000*	
Accumulated Depreciation—Equipment		*$ 40,000*
Accounts Payable		*30,000*
Capital Stock		*100,000*
Retained Earnings, 2010 January 1		*65,600*
Dividends	*24,000*	
Service Revenue		*370,000*
Commissions Expense	*270,000*	
Travel Expense	*36,000*	
Miscellaneous Expense	*12,000*	
	$ 605,600	*$ 605,600*

The prepaid rent is for the period 2010 January 1, to 2011 December 31.

The equipment is expected to last 10 years with no salvage value.

The prepaid insurance was for the period 2010 April 1, to 2011 March 31.

Accrued commissions payable total USD 3,000 at December 31.

a. Prepare a 12-column work sheet for the year ended 2010 December 31. You need not include account numbers or explanations of adjustments.

b. Prepare the adjusting journal entries.

c. Prepare the closing journal entries.

Alternate problem D The following trial balance and additional data are for Best-Friend Pet Hospital, Inc.

BEST-FRIEND PET HOSPITAL, INC. Trial Balance 2010 December 31		Debits	Credits
Cash	*$*	*16,490*	
Accounts Receivable		*54,390*	
Supplies on Hand		*900*	
Prepaid Fire Insurance		*1,800*	
Prepaid Rent		*21,600*	
Equipment		*125,000*	
Accumulated Depreciation —Equipment			*$ 25,000*
Accounts Payable			*29,550*
Notes Payable			*9,000*
Capital Stock			*150,000*
Retained Earnings, 2010 January 1			*20,685*
Service Revenue			*179,010*
Interest Expense		*225*	
Salaries Expense		*142,200*	
Advertising Expense		*29,250*	
Supplies Expense		*2,135*	
Miscellaneous Expense		*3,705*	
Legal and Accounting Expense		*13,750*	
Utilities Expense		*1,800*	
	$	*413,245*	*$ 413,245*

The company consistently followed the policy of initially debiting all prepaid items to asset accounts.

Prepaid fire insurance is USD 600 as of the end of the year.

Supplies on hand are USD 638 as of the end of the year.

Prepaid rent is USD 2,625 as of the end of the year.

The equipment is expected to last 10 years with no salvage value.

Accrued salaries are USD 2,625.

a. Prepare a 12-column work sheet for the year ended 2010 December 31. You need not include account numbers. Briefly explain the entries in the Adjustments columns at the bottom of the work sheet, as was done in Exhibit 20.

b. Prepare the 2010 December 31, closing entries.

Alternate problem E The following trial balance and additional data are for Roswell Interior Decorators, Inc.:

ROSWELL INTERIOR DECORATORS, INC Trial Balance 2010 December 31		
	Debits	**Credits**
Cash	*$ 85,400*	
Accounts Receivable	*81,600*	
Supplies on Hand	*4,000*	
Prepaid Rent	*12,240*	
Prepaid Advertising	*2,880*	
Prepaid Insurance	*4,400*	
Office Equipment	*7,600*	
Accumulated Depreciation—Office Equipment		*$ 2,760*
Office Furniture	*29,200*	
Accumulated Depreciation—Office Furniture		*8,280*
Accounts Payable		*25,200*
Notes Payable (due 2011)		*4,000*
Capital Stock		*100,000*
Retained Earnings, 2010 January 1		*22,400*
Dividends	*45,520*	
Service Revenue		*250,000*
Salaries Expense	*98,800*	
Utilities Expense	*20,000*	
Miscellaneous Expense	*24,000*	
	$ 412,640	*$ 412,640*

Supplies on hand at 2010 December 31, are USD 1,000.

Rent expense for 2010 is USD 10,000.

Advertising expense for 2010 is USD 2,304.

Insurance expense for 2010 is USD 2,400.

Depreciation expense is office equipment, USD 912, and office furniture, USD 3,000.

Accrued interest on notes payable is USD 150.

Accrued salaries are USD 4,200.

a. Prepare a 12-column work sheet for the year ended 2010 December 31. You need not include account numbers or explanations of adjustments.

b. Prepare an income statement.

c. Prepare a statement of retained earnings.

d. Prepare a classified balance sheet.

e. Prepare adjusting and closing entries.

5.11.4.7 Beyond the numbers—Critical thinking

Business decision case A Heather and Dan Holt met while both were employed in the interior trim and upholstery department of an auto manufacturer. After their marriage, they decided to earn some extra income by doing small jobs involving canvas, vinyl, and upholstered products. Their work was considered excellent, and at the urging of their customers, they decided to go into business for themselves, operating out of the basement of the house they owned. To do this, they invested USD 120,000 cash in their business. They spent USD 10,500 for a sewing machine (expected life, 10 years) and USD 12,000 for other miscellaneous tools and equipment (expected life, 5 years). They undertook only custom work, with the customers purchasing the required materials, to avoid stocking any inventory other than supplies. Generally, they required an advance deposit on all jobs.

The business seemed successful from the start, as the Holts received orders from many customers. But they felt something was wrong. They worked hard and charged competitive prices. Yet there seemed to be barely enough cash available from the business to cover immediate personal needs. Summarized, the checkbook of the business for 2010, their second year of operations, showed:

Balance, 2010 January 1			*$*	*99,200*
Cash received from customers:				
For work done in 2009	*$*	*36,000*		
For work done in 2010		*200,000*		
For work to be done in 2011		*48,000*		*284,000*
			$	*383,200*
Cash paid out:				
Two-year insurance policy dated 2010 January 1	*$*	*19,200*		
Utilities		*48,000*		
Supplies		*104,000*		
Other Expenses		*72,000*		
Taxes, including sales taxes		*26,400*		
Dividends		*40,000*		*309,600*
Balance, 2010 December 31			*$*	*73,600*

Considering how much they worked, the Holts were concerned that the cash balance decreased by USD 25,600 even though they only received dividends of USD 40,000. Their combined income from the auto manufacturer had been USD 45,000. They were seriously considering giving up their business and going back to work for the auto manufacturer. They turned to you for advice. You discovered the following:

Of the supplies purchased in 2010, USD 24,000 were used on jobs billed to customers in 2010; no supplies were used for any other work.

Work completed in 2010 and billed to customers for which cash had not yet been received by year-end amounted to USD 40,000.

Prepare a written report for the Holts, responding to their belief that their business is not sufficiently profitable. (Hint: Prepare an income statement for 2010 and include it in your report.)

Annual report analysis B Using the Annual report appendix, calculate the current ratios for the two years shown for The Limited, Inc. Write a summary of the results of your calculations. Also, look at some of the other data provided by the company in preparing your comments. For instance, look at the net income for the last three years.

Broader perspective – Writing experience C Read the "A broader perspective: Skills for the long haul". Write a description of a career in public accounting broader perspective at each level within the firm. Discuss the skills needed and how you could develop these skills.

Group project D In teams of two or three students, interview a management accountant. Management accountants may have the title of chief financial officer (CFO), controller, or some other accounting title within a company. Seek information on the advantages and disadvantages of working as a management accountant. Also inquire about the nature of the work and any training programs offered by the company. As a team, write a memorandum to the instructor summarizing the results of the interview. The heading of the memorandum should contain the date, to whom it is written, from whom, and the subject matter.

Group project E With a small group of students, obtain an annual report of a company in which you have some interest. You may obtain the annual report from your instructor, the library, the Internet, or the company. Describe the nature of each item on the classified balance sheet. You may have to do library research on some of the items. Also, calculate the current ratio for the most recent two years and comment. Write a report to your instructor summarizing the results of the project.

Group project F With a small group of students and using library sources, write a paper comparing the features of three different accounting software packages (such as Peachtree Complete, Quikbooks Pro, DacEasy, MYOB Business Essentials, NetSuite Small Businee and Cougar Mountain). Give the strengths and weaknesses of each. Cite sources for the information and treat direct quotes properly.

5.11.4.8 Using the Internet—A view of the real world

Visit the following Internet site:

http://www.merck.com

Pursue choices you are offered on the screen under Investor Relations until you locate the most recent consolidated balance sheet. In a short report to your instructor, describe how you got to the balance sheet and identify the major headings used in the balance sheet. For instance, the first such heading is Assets. Also, calculate the current ratio.

Visit the following Internet site:

http://www.kodak.com

Type in "Annual report" in the search box to locate the most recent annual report and then find the consolidated statement of financial position. Identify the major headings within the balance sheet and calculate the current ratio for the most recent year. Write a memo to your instructor summarizing your findings.

5.11.4.9 Answers to self-test

True-false

True. The three trial balances are the unadjusted trial balance, the adjusted trial balance, and the post-closing trial balance. The first two trial balances appear on the work sheet.

False. If a debit-balance account (such as Prepaid Rent) is credited in the adjustment, the amount in the Adjustments columns is deducted from the amount in the Trial Balance columns to determine the amount for that item in the Adjusted Trial Balance columns.

True. The net loss appears in the Income Statement credit column to balance the Income Statement columns. Then the loss appears in the Statement of Retained Earnings debit column because it reduces Retained Earnings.

True. All of these accounts are closed, or reduced to zero balances, as a result of the closing process.

False. All revenue and expense accounts have zero balances after closing.

False. Some manual accounting systems are still in use.

Multiple-choice

b. The other accounts are very likely to be adjusted. The Land account would be adjusted only if an error has been made involving that account.

c. The Adjusted Trial Balance columns should balance before items are spread to the Income Statement, Statement of Retained Earnings, and Balance Sheet columns. Therefore, if the Balance Sheet columns do not balance, the error is likely to exist in the last six columns of the work sheet.

d. The net income for the period does not appear in the balance sheet. It does appear in all of the other places listed.

a. The Dividends account is closed to the Retained Earnings account rather than to the Income Summary account.

b. Plant, property, and equipment is one of the long-term asset categories. Response (a) should not include equipment. Response (c) should not include notes receivable. Stockholders' equity is not subdivided into current and long-term categories.

5.11.4.10 Comprehensive review problem

Lopez Delivery Service Company has the following chart of accounts:

Acct. No.	Account Title	Acct. No.	Account Title
100	*Cash*	*310*	*Retained Earnings*
103	*Accounts Receivable*	*320*	*Dividends*
107	*Supplies on Hand*	*400*	*Service Revenue*
108	*Prepaid Insurance*	*507*	*Salaries Expense*
112	*Prepaid Rent*	*511*	*Utilities Expense*
140	*Buildings*	*512*	*Insurance Expense*
141	*Accumulated Depreciation—Buildings*	*515*	*Rent Expense*
150	*Trucks*	*518*	*Supplies Expense*
151	*Accumulated Depreciation—Trucks*	*520*	*Depreciation Expense—Buildings*
200	*Accounts Payable*	*521*	*Depreciation Expense—Trucks*
206	*Salaries Payable*	*568*	*Miscellaneous Expense*
300	*Capital Stock*	*600*	*Income Summary*

The post-closing trial balance as of 2010 May 31, was as follows:

LOPEZ DELIVERY SERVICE COMPANY

Post-Closing Trial Balance

2010 May 31

Acct. No.	Account Title	Debits	Credits
100	*Cash*	*$ 80,000*	
103	*Accounts Receivable*	*30,000*	
107	*Supplies on Hand*	*14,000*	
108	*Prepaid Insurance*	*4,800*	
112	*Prepaid Rent*	*12,000*	
140	*Buildings*	*320,000*	
141	*Accumulated Depreciation —Buildings*		*$ 36,000*
150	*Trucks*	*80,000*	
151	*Accumulated Depreciation—Trucks*		*30,000*
200	*Accounts Payable*		*24,000*
300	*Capital Stock*		*300,000*
310	*Retained Earnings*		*150,800*
		$ 540,800	*$ 540,800*

The transactions for June 2010 were as follows:

June 1 Performed delivery services for customers on account, USD 60,000.

3 Paid dividends, USD 10,000.

4 Purchased a USD 20,000 truck on account.

7 Collected USD 22,000 of the accounts receivable.

8 Paid USD 16,000 of the accounts payable.

11 Purchased USD 4,000 of supplies on account. The asset account for supplies was debited.

17 Performed delivery services for cash, USD 32,000.

20 Paid the utilities bills for June, USD 1,200.

23 Paid miscellaneous expenses for June, USD 600.

28 Paid salaries of USD 28,000 for June.

- Depreciation expense on the buildings for June is USD 800.
- Depreciation expense on the trucks for June is USD 400.
- Accrued salaries at June 30 are USD 4,000.
- A physical count showed USD 12,000 of supplies on hand on June 30.
- The prepaid insurance balance of USD 4,800 applies to a two-year period beginning 2010 June 1.
- The prepaid rent of USD 12,000 applies to a one-year period beginning 2010 June 1.
- Performed USD 12,000 of delivery services for customers as of June 30 that will not be billed to those customers until July.

a. Open three-column ledger accounts for the accounts listed in the chart of accounts.

b. Enter the 2010 May 31, account balances in the accounts.

c. Journalize the transactions for June 2010.

d. Post the June journal entries and include cross-references (assume all journal entries appear on page 10 of the journal).

e. Prepare a 12-column work sheet as of 2010 June 30.

f. Prepare an income statement, a statement of retained earnings, and a classified balance sheet.

g. Prepare and post the adjusting entries (assume they appear on page 11 of the general journal).

h. Prepare and post the closing entries (assume they appear on page 12 of the general journal).

i. Prepare a post-closing trial balance.

6 Accounting theory

6.1 Learning objectives

After studying this chapter, you should be able to:

- Identify and discuss the underlying assumptions or concepts of accounting.
- Identify and discuss the major principles of accounting.
- Identify and discuss the modifying conventions (or constraints) of accounting.
- Describe the conceptual framework project of the Financial Accounting Standards Board.
- Discuss the nature and content of a company's summary of significant accounting policies in its annual report.

6.2 A career as an accounting professor

Do you enjoy college life? Do you enjoy teaching others? If so, you might want to consider a career as a college professor. Although a position as a college professor may pay less than some other career alternatives, the intangible benefits are beyond measure. A college professor can make a real difference in the lives of hundreds, even thousands, of students over a career. Students come to college with great potential, but are in need of some additional training and guidance. The work of a college professor is a valuable investment in our nation's most valuable resource—people.

College faculty generally teach fewer hours each week than elementary and secondary school teachers. This is because most college faculty have at least two additional important responsibilities: research and service. The research component represents far more than just summarizing what others have already learned. It represents arriving at new knowledge by discovering things that previously were unknown. For instance, accounting research has demonstrated the ways in which accounting numbers such as earnings and stockholder's equity are related to stock prices. This illustrates the importance of accounting numbers and has resulted in a large stream of discovery called Capital Markets research. Besides teaching and research, most faculty have significant service responsibilities as well. Accounting faculty are involved in service to the university, the accounting profession, and to the general public. Many college faculty dedicate 10-20 hours or more each week to the service component of their jobs.

The demand for college professors varies greatly by discipline. In fields such as English, Fine Arts, Philosophy, and Psychology there is a large supply of candidates with advanced degrees and, thus, the competition for positions as college professors in these areas is intense. However, in applied fields such

as accounting and engineering, there is a shortage of candidates with advanced degrees. The opportunities for professors in these applied fields are excellent, and the chance to make a real difference in the lives of others is exciting.

Chapter 1 briefly introduced the body of theory underlying accounting procedures. In this chapter, we discuss accounting theory in greater depth. Now that you have learned some accounting procedures, you are better able to relate these theoretical concepts to accounting practice. **Accounting theory** is "a set of basic concepts and assumptions and related principles that explain and guide the accountant's actions in identifying, measuring, and communicating economic information".[1]

To some people, the word theory implies something abstract and out of reach. Understanding the theory behind the accounting process, however, helps one make decisions in diverse accounting situations. Accounting theory provides a logical framework for accounting practice.

The first part of the chapter describes underlying accounting assumptions or concepts, the measurement process, the major principles, and modifying conventions or constraints. Accounting theory has developed over the years and is contained in authoritative accounting literature and textbooks. The next part of the chapter describes the development of the Financial Accounting Standards Board's (FASB) conceptual framework for accounting. This framework builds on accounting theory developed over time and serves as a basis for formulating accounting standards in the future. Presenting the traditional body of theory first and the conceptual framework second gives you a sense of the historical development of accounting theory. Despite some overlap between the two parts of the chapter, remember that FASB's conceptual framework builds on traditional theory rather than replaces it. The final part of the chapter discusses significant accounting policies contained in annual reports issued by companies and illustrates them with an actual example from an annual report of the Walt Disney Company.

6.3 Traditional accounting theory

Traditional accounting theory consists of underlying assumptions, rules of measurement, major principles, and modifying conventions (or constraints). The following sections describe these aspects of accounting theory that greatly influence accounting practice.

1American Accounting Association, *A Statement of Basic Accounting Theory* (Sarasota, Fla., 1966), pp. 1-2.

6.4 Underlying assumptions or concepts

The major underlying assumptions or concepts of accounting are (1) business entity, (2) going concern (continuity), (3) money measurement, (4) stable dollar, and (5) periodicity. This section discusses the effects of these assumptions on the accounting process.

Data gathered in an accounting system must relate to a specific business unit or entity. The **business entity concept** assumes that each business has an existence separate from its owners, creditors, employees, customers, interested parties, and other businesses. For each business (such as a horse stable or a fitness center), the business, not the business owner, is the accounting entity. Therefore, financial statements are identified as belonging to a particular business entity. The content of these financial statements reports only on the activities, resources, and obligations of that entity.

A business entity may be made up of several different legal entities. For instance, a large business (such as General Motors Corporation) may consist of several separate corporations, each of which is a separate legal entity. For reporting purposes, however, the corporations may be considered as one business entity because they have a common ownership. Chapter 14 illustrates this concept.

When accountants record business transactions for an entity, they assume it is a going concern. The **going-concern (continuity) assumption** states that an entity will continue to operate indefinitely unless strong evidence exists that the entity will terminate. The termination of an entity occurs when a company ceases business operations and sells its assets. The process of termination is called **liquidation**. If liquidation appears likely, the going-concern assumption is no longer valid.

Accountants often cite the going-concern assumption to justify using historical costs rather than market values in measuring assets. Market values are of less significance to an entity using its assets rather than selling them. On the other hand, if an entity is liquidating, it should use liquidation values to report assets.

The economic activity of a business is normally recorded and reported in money terms. **Money measurement** is the use of a monetary unit such as the dollar instead of physical or other units of measurement. Using a particular monetary unit provides accountants with a common unit of measurement to report economic activity. Without a monetary unit, it would be impossible to add such items as buildings, equipment, and inventory on a balance sheet.

Financial statements identify their unit of measure (such as the dollar in the United States) so the statement user can make valid comparisons of amounts. For example, it would be difficult to compare relative asset amounts or profitability of a company reporting in US dollars with a company reporting in Japanese yen.

In the United States, accountants make another assumption regarding money measurement—the stable dollar assumption. Under the **stable dollar assumption**, the dollar is accepted as a reasonably stable unit of measurement. Thus, accountants make no adjustments for the changing value of the dollar in the primary financial statements.

Using the stable dollar assumption creates a difficulty in depreciation accounting. Assume, for example, that a company acquired a building in 1975 and computed the 30-year straight-line depreciation on the building without adjusting for any changes in the value of the dollar. Thus, the depreciation deducted in 2008 is the same as the depreciation deducted in 1975. The company makes no adjustments for the difference between the values of the 1975 dollar and the 2008 dollar. Both dollars are treated as equal monetary units of measurement despite substantial price inflation over the 30-year period. Accountants and business executives have expressed concern over this inflation problem, especially during periods of high inflation.

According to the **periodicity (time periods) assumption**, accountants divide an entity's life into months or years to report its economic activities. Then, accountants attempt to prepare accurate reports on the entity's activities for these periods. Although these time-period reports provide useful and timely financial information for investors and creditors, they may be inaccurate for some of these time periods because accountants must estimate depreciation expense and certain other adjusting entries.

Accounting reports cover relatively short periods. These time periods are usually of equal length so that statement users can make valid comparisons of a company's performance from period to period. The length of the accounting period must be stated in the financial statements. For instance, so far, the income statements in this text were for either one month or one year. Companies that publish their financial statements, such as publicly held corporations, generally prepare monthly statements for internal management and publish financial statements quarterly and annually for external statement users.

Accrual basis and periodicity Chapter 3 demonstrated that financial statements more accurately reflect the financial status and operations of a company when prepared under the accrual basis rather than the cash basis of accounting. Under the cash basis, we record revenues when cash is received and expenses when cash is paid. Under the accrual basis, however, we record revenues when services are rendered or products are sold and expenses when incurred.

The periodicity assumption requires preparing adjusting entries under the accrual basis. Without the periodicity assumption, a business would have only one time period running from its inception to its termination. Then, the concepts of cash basis and accrual basis accounting would be irrelevant

because all revenues and all expenses would be recorded in that one time period and would not have to be assigned to artificially short periods of one year or less.

Approximation and judgment because of periodicity To provide periodic financial information, accountants must often estimate expected uncollectible accounts (see Chapter 9) and the useful lives of depreciable assets. Uncertainty about future events prevents precise measurement and makes estimates necessary in accounting. Fortunately, these estimates are often reasonably accurate.

6.5 Other basic concepts

Other basic accounting concepts that affect accounting for entities are (1) general-purpose financial statements, (2) substance over form, (3) consistency, (4) double entry, and (5) articulation. We discuss these basic accounting concepts next.

Accountants prepare **general-purpose financial statements** at regular intervals to meet many of the information needs of external parties and top-level internal managers. In contrast, accountants can gather special-purpose financial information for a specific decision, usually on a one-time basis. For example, management may need specific information to decide whether to purchase a new computer system. Since special-purpose financial information must be specific, this information is best obtained from the detailed accounting records rather than from the financial statements.

In some business transactions, the economic substance of the transaction conflicts with its legal form. For example, a contract that is legally a lease may, in fact, be equivalent to a purchase. A company may have a three-year contract to lease (rent) an automobile at a stated monthly rental fee. At the end of the lease period, the company receives title to the auto after paying a nominal sum (say, USD 1). The economic substance of this transaction is a purchase rather than a lease of the auto. Thus, under the substance-over-form concept, the auto is an asset on the balance sheet and is depreciated instead of showing rent expense on the income statement. Accountants record a transaction's economic substance rather than its legal form.

Consistency generally requires that a company use the same accounting principles and reporting practices through time. This concept prohibits indiscriminate switching of accounting principles or methods, such as changing inventory methods every year. However, consistency does not prohibit a change in accounting principles if the information needs of financial statement users are better served by the change. When a company makes a change in accounting principles, it must make the following disclosures in the financial statements: (1) nature of the change; (2) reasons for the change; (3) effect of the change on current net income, if significant; and (4) cumulative effect of the change on past income.

Chapter 2 introduced the basic accounting concept of the double-entry method of recording transactions. Under the double-entry approach, every transaction has a two-sided effect on each party engaging in the transaction. Thus, to record a transaction, each party debits at least one account and credits at least one account. The total debits equal the total credits in each journal entry.

When learning how to prepare work sheets in Chapter 4, you learned that financial statements are fundamentally related and **articulate** (interact) with each other. For example, we carry the amount of net income from the income statement to the statement of retained earnings. Then we carry the ending balance on the statement of retained earnings to the balance sheet to bring total assets and total equities into balance.

In Exhibit 27 we summarize the underlying assumptions or concepts. The next section discusses the measurement process used in accounting.

6.6 The measurement process in accounting

Earlier, we defined accounting as "the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by the users of the information".[2] In this section, we focus on the measurement process of accounting.

Accountants measure a business entity's assets, liabilities, and stockholders' equity and any changes that occur in them. By assigning the effects of these changes to particular time periods (periodicity), they can find the net income or net loss of the accounting entity for those periods.

Accountants measure the various assets of a business in different ways. They measure cash at its specified amount. Chapter 9 explains how they measure claims to cash, such as accounts receivable, at their expected cash inflows, taking into consideration possible uncollectibles. They measure inventories, prepaid expenses, plant assets, and intangibles at their historical costs (actual amounts paid). After the acquisition date, they carry some items, such as inventory, at the lower-of-cost-or-market value. After the acquisition date, they carry plant assets and intangibles at original cost less accumulated depreciation or amortization. They measure liabilities at the amount of cash that will be paid or the value of services that will be performed to satisfy the liabilities.

Accountants can easily measure some changes in assets and liabilities, such as the acquisition of an asset on credit and the payment of a liability. Other changes in assets and liabilities, such as those recorded in adjusting entries, are more difficult to measure because they often involve estimates and/or calculations. The accountant must determine when a change has taken place and the amount of

2Ibid., p. 1.

the change. These decisions involve matching revenues and expenses and are guided by the principles discussed next.

Assumption or Concept	***Description***	***Importance***
Business entity	Each business has an existence separate from its owners, creditors, employees, customers, other interested parties, and other businesses.	Defines the scope of the business such as a horse stable or physical fitness center. Identifies which transactions should be recorded on the company's books.
Going concern (continuity)	An entity will continue to operate indefinitely unless strong evidence exists that the entity will terminate.	Allows a company to continue carrying plant assets at their historical costs in spite of a change in their market values.
Money measurement	Each business uses a monetary unit of measurement, such as the dollar, instead of physical or other units of measurement.	Provides accountants with a common unit of measure to report economic activity. This concept permits us to add an d subtract items on the financial statements.
Stable dollar	The dollar is accepted as a reasonably stable unit of measure.	Permits us to make no adjustments in the financial statements for the changing value of the dollar. This assumption works fairly well in the United States because of our relatively low rate of inflation.
Periodicity (time periods)	An entity's life can be subdivided into months or years to report its economic activities.	Permits us to prepare financial statements that cover periods shorter than the entire life of a business. Thus, we know how well a business is performing before it terminates its operations. The need for adjusting entries arises because of this concept and the use of accrual accounting.
General-purpose financial statements	One set of financial statements serves the needs of all users.	Allows companies to prepare only one set of financial statements instead of a separate set for each potential type of user of those statements. The financial statements should be free of bias so they do not favor the interests of any one type of user.
Substance over form	Accountants should record the economic substance of a transaction rather than its legal form.	Encourages the accountant to record the true nature of a transaction rather than its apparent nature. This approach is the accounting equivalent of "tell it like it is." An apparent lease transaction that has all the characteristics of a purchase should be recorded as a purchase.
Consistency	Generally requires that a company use the same accounting principles and reporting practices every accounting period.	Prevents a company from changing accounting methods whenever it likes to present a better picture or to manipulate income. The inventory and depreciation chapters (Chapters 7 and 10) both mention the importance of this concept.
Double entry	Every transaction has a two-sided effect on each company or party engaging in the transaction.	Uses a system of checks and balances to help identify whether or not errors have been made in recording transactions. When the debits do not equal the credits, this inequality immediately signals us to stop and find the error.
Articulation	Financial statements are fundamentally related and articulate (interact) with each other.	Changes in account balances during an accounting period are reflected in financial statements that are related to one another. For instance, earning revenue increases net income on the income statement, retained earnings on the statement of retained earnings, and assets and retained earnings on the balance sheet. The statement of retained earnings ties the income statement and balance sheet together.

Exhibit 27: The underlying assumptions or concepts

6.7 The major principles

Generally accepted accounting principles (GAAP) set forth standards or methods for presenting financial accounting information. A standardized presentation format enables users to compare the

financial information of different companies more easily. Generally accepted accounting principles have been either developed through accounting practice or established by authoritative organizations. Organizations that have contributed to the development of the principles are the American Institute of Certified Public Accountants (AICPA), the Financial Accounting Standards Board (FASB), the Securities and Exchange Commission (SEC), the American Accounting Association (AAA), the Financial Executives Institute (FEI), and the Institute of Management Accounting (IMA). This section explains the following major principles:

- Exchange-price (or cost) principle.
- Revenue recognition principle.
- Matching principle.
- Gain and loss recognition principle.
- Full disclosure principle.

Whenever resources are transferred between two parties, such as buying merchandise on account, the accountant must follow the exchange-price (or cost) principle in presenting that information. The **exchange-price (or cost) principle** requires an accountant to record transfers of resources at prices agreed on by the parties to the exchange at the time of exchange. This principle sets forth (1) what goes into the accounting system—transaction data; (2) when it is recorded—at the time of exchange; and (3) the amounts—exchange prices—at which assets, liabilities, stockholders' equity, revenues, and expenses are recorded.

As applied to most assets, this principle is often called the **cost principle**. It dictates that purchased or self-constructed assets are initially recorded at historical cost. **Historical cost** is the amount paid, or the fair market value of the liability incurred or other resources surrendered, to acquire an asset and place it in a condition and position for its intended use. For instance, when the cost of a plant asset (such as a machine) is recorded, its cost includes the net purchase price plus any costs of reconditioning, testing, transporting, and placing the asset in the location for its intended use. Accountants prefer the term exchange-price principle to cost principle because it seems inappropriate to refer to liabilities, stockholders' equity, and such assets as cash and accounts receivable as being measured in terms of cost.

More recently, the FASB in SFAS 157 has moved definitively towards fair market value accounting, or "mark-to-market", which records the value of an asset or liability at its current market value (also known as a "fair value") rather than its book value.

SFAS 157 defines "fair value" as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date".

It is also defined as "an exit price from the perspective of a market participant that holds the asset or owes the liability", whether or not the business plans to hold the asset/liability for investment, or sell it.

"The fair value accounting standard SFAS 157 applies to financial assets of all publicly-traded companies in the US as of 2007 Nov. 15. It also applies to non-financial assets and liabilities that are recognized, or disclosed, at fair value on a recurring basis. Beginning in 2009, the standard will apply to other non-financial assets. SFAS 157 applies to items for which other accounting pronouncements require or permit fair value measurements except share-based payment transactions, such as stock option compensation.

"SFAS 157 provides a hierarchy of three levels of input data for determining the fair value of an asset or liability. This hierarchy ranks the quality and reliability of information used to determine fair values, with level 1 inputs being the most reliable and level 3 inputs being the least reliable.

- Level 1 is quoted prices for identical items in active, liquid and visible markets such as stock exchanges.
- Level 2 is observable information for similar items in active or inactive markets, such as two similarly situated buildings in a downtown real estate market.
- Level 3 are unobservable inputs to be used in situations where markets do not exist or are illiquid such as the present credit crisis. At this point fair market valuation becomes highly subjective."

Fair value accounting has been a contentious topic since it was introduced, For example, "banks and investment banks have had to reduce the value of the mortgages and mortgage-backed securities to reflect current prices". Those prices declined severely with the collapse of credit markets as mortgage defaults escalated in the financial crisis of 2008-2009. Despite debate over the proper implementation of fair market value accounting, International Financial Reporting Standards utilize this approach much more than the Generally Accepted Accounting Principles of the United States.

To learn more about fair market value accounting, visit the AICPA site, (http://www.aicpa.org/MediaCenter/fva_faq.htm), the source used for the explanation of this topic.

An accounting perspective: Business insight

In some European countries, the financial statements contain secret reserves. These secret reserves arise from a company not reporting all of its profits when it has a very good year. The justification is that the stockholders vote on the amount of dividends they receive each

year; if all profits were reported, the stockholders might vote to pay the entire amount out as dividends. By holding back some profits, not only are the creditors more protected but the company is also more solvent and has more resources to invest in productive assets.

Revenue is not difficult to define or measure; it is the inflow of assets from the sale of goods and services to customers, measured by the cash expected to be received from customers. However, the crucial question for the accountant is when to record a revenue. Under the **revenue recognition principle**, revenues should be earned and realized before they are recognized (recorded).

Earning of revenue All economic activities undertaken by a company to create revenues are part of the earning process. Many activities may have preceded the actual receipt of cash from a customer, including (1) placing advertisements, (2) calling on the customer several times, (3) submitting samples, (4) acquiring or manufacturing goods, and (5) selling and delivering goods. For these activities, the company incurs costs. Although revenue was actually being earned by these activities, accountants do not recognize revenue until the time of sale because of the requirement that revenue be substantially earned before it is recognized (recorded). This requirement is the **earning principle.**

Realization of revenue Under the **realization principle**, the accountant does not recognize (record) revenue until the seller acquires the right to receive payment from the buyer. The seller acquires this right from the buyer at the time of sale for merchandise transactions or when services have been performed in service transactions. Legally, a sale of merchandise occurs when title to the goods passes to the buyer. The time at which title passes normally depends on the shipping terms—FOB shipping point or FOB destination (as we discuss in Chapter 6). As a practical matter, accountants generally record revenue when goods are delivered.

The advantages of recognizing revenue at the time of sale are (1) the actual transaction—delivery of goods—is an observable event; (2) revenue is easily measured; (3) risk of loss due to price decline or destruction of the goods has passed to the buyer; (4) revenue has been earned, or substantially so; and (5) because the revenue has been earned, expenses and net income can be determined. As discussed later, the disadvantage of recognizing revenue at the time of sale is that the revenue might not be recorded in the period during which most of the activity creating it occurred.

Exceptions to the realization principle The following examples are instances when practical considerations may cause accountants to vary the point of revenue recognition from the time of sale. These examples illustrate the effect that the business environment has on the development of accounting principles and standards.

Cash collection as point of revenue recognition Some small companies record revenues and expenses at the time of cash collection and payment, which may not occur at the time of sale. This procedure is the cash basis of accounting. The cash basis is acceptable primarily in service enterprises that do not have substantial credit transactions or inventories, such as business entities of doctors or dentists.

Installment basis of revenue recognition When collecting the selling price of goods sold in monthly or annual installments and considerable doubt exists as to collectibility, the company may use the installment basis of accounting. Companies make these sales in spite of the doubtful collectibility of the account because their margin of profit is high and the goods can be repossessed if the payments are not received. Under the **installment basis**, the percentage of total gross margin (selling price of a good minus its cost) recognized in a period is equal to the percentage of total cash from a sale that is received in that period. Thus, the gross margin recognized in a period is equal to the cash received times the gross margin percentage (gross margin divided by selling price). The formula to recognize gross profit on cash collections made on installment sales of a certain year is:

$$\text{Cash collections x Gross margin percentage} = \text{Gross margin recognized}$$

To be more precise, we expand the descriptions in the formula as follows:

Cash collections this year resulting from installment sales made in a certain year	X	Gross margin percentage for the year of sale	= Gross margin recognized this year on cash collections this year from installment sales made in a certain year

To illustrate, assume a company sold a stereo set. The facts of the sale are:

Date of sale	Selling price	Cost	Gross margin (Selling price – Cost)	Gross margin percentage (Gross margin/Selling price)
2010 Oct. 1	USD 500	USD 300	(500-300) – 200	(200/500) = 40 per cent

The buyer makes 10 equal monthly installment payments of USD 50 to pay for the set (10 X USD 50 = USD 500). If the company receives three monthly payments in 2010, the total amount of cash received in 2010 is USD 150 (3 X USD 50). The gross margin to recognize in 2010 is:

2010 cash collections from 2010 installment sales	X	Gross margin percentage on 2010 installment sales	= 2010 gross margin recognized on 2010 cash collections from 2010 installment sales
USD 150	X	**40 per cent**	**= USD 60**

The company collects the other installments when due so it receives a total of USD 350 in 2011 from 2010 installment sales. The gross margin to recognize in 2011 on these cash collections is as follows:

2011 cash collections from 2010 installment sales	X	Gross margin percentage on 2010 installment sales	= 2011 gross margin recognized on 2011 cash collections from 2010 installment sales
USD 350	**X**	**40 per cent**	**= USD 140**

In summary, the total receipts and gross margin recognized in the two years are as follows:

Year	Total Amount of Cash Recognized	Gross Margin Recognized
2010	$150 30%	$ 60 30%
2011	..... 350 70%	140 70%
	$500 100%	$200 100%

Because the installment basis delays some revenue recognition beyond the time of sale, it is acceptable for accounting purposes only when considerable doubt exists as to collectibility of the installments.

Revenue recognition on long-term construction projects Companies recognize revenue from a long-term construction project under two different methods: (1) the completed-contract method or (2) the percentage-of-completion method. The **completed-contract method** does not recognize any revenue until the project is completed. In that period, they recognize all revenue even though the contract may have required three years to complete. Thus, the completed-contract method recognizes revenues at the time of sale, as is true for most sales transactions. Companies carry costs incurred on the project forward in an inventory account (Construction in Process) and charge them to expense in the period in which the revenue is recognized.

Some accountants argue that waiting so long to recognize any revenue is unreasonable. They believe that because revenue-producing activities have been performed during each year of construction, revenue should be recognized in each year of construction even if estimates are needed. The **percentage-of-completion method** recognizes revenue based on the estimated stage of completion of a long-term project. To measure the stage of completion, firms compare actual costs incurred in a period with the total estimated costs to be incurred on the project.

To illustrate, assume that a company has a contract to build a dam for USD 44 million. The estimated construction cost is USD 40 million. You calculate the estimated gross margin as follows:

Sales price of dam	Estimated costs of construct dam	Estimated gross margin (sales price – estimated costs)
USD 44 million	USD 40 million	(44 million – 40 million) – 4 million

The firm recognizes the USD 4 million gross margin in the financial statements by recording the assigned revenue for the year and then deducting actual costs incurred that year. The formula to recognize revenue is:

$$\frac{\text{Actual construction costs incurred during the period}}{\text{Total estimated construction costs for the entire project}} \text{ x Total sales price} = \text{Revenue recognized for period}$$

Suppose that by the end of the first year (2010), the company had incurred actual construction costs of USD 30 million. These costs are 75 per cent of the total estimated construction costs (USD 30 million/USD 40 million = 75 per cent). Under the percentage-of-completion method, the firm would use the 75 per cent figure to assign revenue to the first year. In 2011, it incurs another USD 6 million of construction costs. In 2012, it incurs the final USD 4 million of construction costs. The amount of revenue to assign to each year is as follows:

Year	*Ratio of Actual Construction Costs to Total Estimated Construction Costs*	*X*	*Agreed Price = of Dam =*	*Amount of Revenue to Recognize (Assign)*
2010	**($30 million + $40 million = 75%)**			
	75%	**X**	**$44 million =**	**$33 million**
2011	**($6 million + $40 million = 15%)**			
	15%	**X**	**$44 million =**	**$6.6 million**
2012	**($4 million + $40 million = 10%)**			
	10%	**X**	**$44 million =**	**$4.4 million**
				$44 million

The amount of gross margin to recognize in each year is as follows:

Year	Assigned Revenues	Actual - Construction Costs	Recognized = Gross Margin
2010	$33.0 million	- $30.0 million	= $3.0 million
2011	6.6	- 6.0	= 0.6
2012	4.4	- 4.0	= 0.4
	$44.0 million	$40.0 million	$4.0 million

	Number of Companies			
	2003	**2002**	**2001**	**2000**
Percentage of completion	78	82	80	71
Units of delivery	32	26	21	19
Completed contract	9	5	3	5

Source: American Institute of Certified Public Accountants, **Accounting Trends & Techniques (New** York: AICPA, 2004), p. 432

Exhibit 28: Methods of accounting for long-term contracts

This company would deduct other costs incurred in the accounting period, such as general and administrative expenses, from gross margin to determine net income. For instance, assuming general and administrative expenses were USD 100,000 in 2010, net income would be (USD 3,000,000 - USD 100,000) = USD 2,900,000.

Expense recognition is closely related to, and sometimes discussed as part of, the revenue recognition principle. The **matching principle** states that expenses should be recognized (recorded) as they are incurred to produce revenues. An expense is the outflow or using up of assets in the generation of revenue. Firms voluntarily incur expense to produce revenue. For instance, a television set delivered by a dealer to a customer in exchange for cash is an asset consumed to produce revenue; its cost becomes an expense. Similarly, the cost of services such as labor are voluntarily incurred to produce revenue.

The measurement of expense Accountants measure most assets used in operating a business by their historical costs. Therefore, they measure a depreciation expense resulting from the consumption of those assets by the historical costs of those assets. They measure other expenses, such as wages that are paid for currently, at their current costs.

The timing of expense recognition The matching principle implies that a relationship exists between expenses and revenues. For certain expenses, such as costs of acquiring or producing the products sold, you can easily see this relationship. However, when a direct relationship cannot be seen, we charge the costs of assets with limited lives to expense in the periods benefited on a systematic and rational allocation basis. Depreciation of plant assets is an example.

Product costs are costs incurred in the acquisition or manufacture of goods. As you will see in the next chapter, included as product costs for purchased goods are invoice, freight, and insurance-in-transit costs. For manufacturing companies, product costs include all costs of materials, labor, and factory operations necessary to produce the goods. Product costs attach to the goods purchased or produced and remain in inventory accounts as long as the goods are on hand. We charge product costs to expense when the goods are sold. The result is a precise matching of cost of goods sold expense to its related revenue.

Period costs are costs not traceable to specific products and expensed in the period incurred. Selling and administrative costs are period costs.

The **gain and loss recognition principle** states that we record gains only when realized, but losses when they first become evident. Thus, we recognize losses at an earlier point than gains. This principle is related to the conservatism concept.

Gains typically result from the sale of long-term assets for more than their book value. Firms should not recognize gains until they are realized through sale or exchange. Recognizing potential gains before they are actually realized is not allowed.

Losses consume assets, as do expenses. However, unlike expenses, they do not produce revenues. Losses are usually involuntary, such as the loss suffered from destruction by fire on an uninsured

building. A loss on the sale of a building may be voluntary when management decides to sell the building even though incurring a loss.

The **full disclosure principle** states that information important enough to influence the decisions of an informed user of the financial statements should be disclosed. Depending on its nature, companies should disclose this information either in the financial statements, in notes to the financial statements, or in supplemental statements. In judging whether or not to disclose information, it is better to err on the side of too much disclosure rather than too little. Many lawsuits against CPAs and their clients have resulted from inadequate or misleading disclosure of the underlying facts.

We summarize the major principles and describe the importance of each in Exhibit 29.

An accounting perspective: Business insight

The accounting model involves reporting revenues earned and expenses incurred by the company. Some have argued that social benefits and social costs created by the company should also be reported. Suppose, for instance, that a company is dumping toxic waste into a river and this action causes cancer among the citizens downstream. Should this cost be reported when preparing financial statements showing the performance of the company? What do you think?

6.8 Modifying conventions (or constraints)

In certain instances, companies do not strictly apply accounting principles because of modifying conventions (or constraints). **Modifying conventions** are customs emerging from accounting practice that alter the results obtained from a strict application of accounting principles. Three modifying conventions are cost-benefit, materiality, and conservatism.

Cost-benefit The cost-benefit consideration involves deciding whether the benefits of including optional information in financial statements exceed the costs of providing the information. Users tend to think information is cost free since they incur none of the costs of providing the information. Preparers realize that providing information is costly. The benefits of using information should exceed the costs of providing it. The measurement of benefits is inexact, which makes application of this modifying convention difficult in practice.

Materiality Materiality is a modifying convention that allows accountants to deal with immaterial (unimportant) items in an expedient but theoretically incorrect manner. The fundamental question accountants must ask in judging the materiality of an item is whether a knowledgeable user's decisions would be different if the information were presented in the theoretically correct manner. If not, the

item is immaterial and may be reported in a theoretically incorrect but expedient manner. For instance, because inexpensive items such as calculators often do not make a difference in a statement user's decision to invest in the company, they are immaterial (unimportant) and may be expensed when purchased. However, because expensive items such as mainframe computers usually do make a difference in such a decision, they are material (important) and should be recorded as assets and depreciated. Accountants should record all material items in a theoretically correct manner. They may record immaterial items in a theoretically incorrect manner simply because it is more convenient and less expensive to do so. For example, they may debit the cost of a wastebasket to an expense account rather than an asset account even though the wastebasket has an expected useful life of 30 years. It simply is not worth the cost of recording depreciation expense on such a small item over its life.

The FASB defines materiality as "the magnitude of an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement".[3] The term magnitude in this definition suggests that the materiality of an item may be assessed by looking at its relative size. A USD 10,000 error in an expense in a company with earnings of USD 30,000 is material. The same error in a company earning USD 30,000,000 may not be material.

Materiality involves more than the relative dollar amounts. Often the nature of the item makes it material. For example, it may be quite significant to know that a company is paying bribes or making illegal political contributions, even if the dollar amounts of such items are relatively small.

Conservatism Conservatism means being cautious or prudent and making sure that assets and net income are not overstated. Such overstatements can mislead potential investors in the company and creditors making loans to the company. We apply conservatism when the lower-of-cost-or-market rule is used for inventory (see Chapter 7). Accountants must realize a fine line exists between conservative and incorrect accounting.

See Exhibit 30 for a summary of the modifying conventions and their importance.

The next section of this chapter discusses the conceptual framework project of the Financial Accounting Standards Board. The FASB designed the conceptual framework project to resolve some

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3FASB, *Statement of Financial Accounting Concepts No. 2*, "Qualitative Characteristics of Accounting Information" (Stamford, Conn., 1980), p. xv. Copyright © by the Financial Accounting Standards Board, High Ridge Park, Stamford, Connecticut 06905, U.S.A. Quoted (or excerpted) with permission. Copies of the complete documents are available from the FASB.

disagreements about the proper theoretical foundation for accounting. We present only the portions of the project relevant to this text.

Principle	***Description***	***Importance***
Exchange-price (or cost)	Requires transfers of resources to be recorded at prices agreed on by the parties to the exchange at the time of the exchange.	Tells the accountant to record a transfer of resources at an objectively determinable amount at the time of the exchange. Also, self-constructed assets are recorded at their actual cost rather than at some estimate of what they would have cost if they had been purchased.
Revenue recognition	Revenues should be earned and realized before they are recognized (recorded).	Informs accountant that revenues generally should be recognized when services are performed or goods are sold. Exceptions are made for items such as installment sales and long-term construction projects.
Matching	Expenses should be recognized (recorded) as they are incurred to produce revenues.	Indicates that expenses are to be recorded as soon as they are incurred rather than waiting until some future time.
Gain and loss recognition	Gains may be recorded only when realized, but losses should be recorded when they first become evident.	Tells the accountant to be conservative when recognizing gains and losses. Gains can only be recognized when they have been realized through sale or exchange. Losses should be recognized as soon as they become evident. Thus, potential losses can be recorded, but only gains that have actually been realized can be recorded.
Full disclosure	Information important enough to influence the decisions of an informed user of the financial statements should be disclosed.	Requires the accountant to disclose everything that is important. A good rule to follow is—if in doubt, disclose. Another good rule is—if you are not consistent, disclose all the facts and the effect on income.

Exhibit 29: The major principles

Modifying Convention	***Description***	***Importance***
Cost-benefit	Optional information should be included financial statements only if the benefits providing it exceed its costs.	Lets the accountant know that information that is not required should be made available only if its benefits exceed its costs. An example may be companies going to the expense of providing information on the effects of inflation when the inflation rate is low and/or users do not seem to benefit significantly from the information.
Materiality	Only items that would affect a knowledgeable user's decision are material (important) and must be reported in a theoretically correct way.	Allow accountants to treat immaterial (relatively small dollar amount) information in a theoretically incorrect but expedient manner. For instance, a wastebasket can be expensed rather than capitalized and depreciated even though it may last for 30 years.
Conservatism	Transactions should be recorded so that assets and net income are not overstated.	Warns accountants that assets and net income are not to be overstated. "Anticipate (and record) all possible losses and do not anticipate (or record) any possible gains" is common advice under this constraint. Also, conservative application of the matching principle involves making sure that adjustments for expenses for such items as uncollectible accounts, warranties, and depreciation are adequate.

Exhibit 30: Modifying conventions

6.9 The financial accounting standards board's conceptual framework project

Experts have debated the exact nature of the basic concepts and related principles composing accounting theory for years. The debate continues today despite numerous references to generally

accepted accounting principles (GAAP). To date, all attempts to present a concise statement of GAAP have received only limited acceptance.

Due to this limited success, many accountants suggest that the starting point in reaching a concise statement of GAAP is to seek agreement on the objectives of financial accounting and reporting. The belief is that if a person (1) carefully studies the environment, (2) knows what objectives are sought, (3) can identify certain qualitative traits of accounting information, and (4) can define the basic elements of financial statements, that person can discover the principles and standards leading to the stated objectives. The FASB completed the first three goals by publishing "Objectives of Financial Reporting by Business Enterprises" and "Qualitative Characteristics of Accounting Information".[4] Addressing the fourth goal are concepts statements entitled "Elements of Financial Statements of Business Enterprises" and "Elements of Financial Statements".[5]

6.10 Objectives of financial reporting

Financial reporting objectives are the broad overriding goals sought by accountants engaging in financial reporting. According to the FASB, the first objective of financial reporting is to:

> *provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions. The information should be comprehensible to those who have a reasonable understanding of business and economic activities and are willing to study the information with reasonable diligence.*[6]

4FASB, *Statement of Financial Accounting Concepts No. 1,* "Objectives of Financial Reporting by Business Enterprises" (Stamford, Conn., 1978); and *Statement of Financial Accounting Concepts No. 2*, "Qualitative Characteristics of Accounting Information" (Stamford, Conn., 1980). Copyright © by the Financial Accounting Standards Board, High Ridge Park, Stamford, Connecticut 06905, U.S.A. Quoted (or excerpted) with permission. Copies of the complete documents are available from the FASB.

5FASB, *Statement of Financial Accounting Concepts No. 3,* "Elements of Financial Statements of Business Enterprises" (Stamford, Conn., 1980); and *Statement of Financial Accounting Concepts No. 6*, "Elements of Financial Statements" (Stamford, Conn., 1985). Copyright © by the Financial Accounting Standards Board, High Ridge Park, Stamford, Connecticut 06905, U.S.A. Quoted (or excerpted) with permission. Copies of the complete documents are available from the FASB.

6FASB, *Statement of Financial Accounting Concepts No. 1*, p. viii.

Interpreted broadly, the term other users includes employees, security analysts, brokers, and lawyers. Financial reporting should provide information to all who are willing to learn to use it properly.

The second objective of financial reporting is to:

> *provide information to help present and potential investors and creditors and other users in assessing the amounts, timing, and uncertainty of prospective cash receipts from dividends [owner withdrawals] or interest and the proceeds from the sale, redemption, or maturity of securities or loans. Since investors' and creditors' cash flows are related to enterprise cash flows, financial reporting should provide information to help investors, creditors, and others assess the amounts, timing, and uncertainty of prospective net cash inflows to the related enterprise.*[7]

This objective ties the cash flows of investors (owners) and creditors to the cash flows of the enterprise, a tie-in that appears entirely logical. Enterprise cash inflows are the source of cash for dividends, interest, and the redemption of maturing debt.

Third, financial reporting should:

> *provide information about the economic resources of an enterprise, the claims to those resources (obligations of the enterprise to transfer resources to other entities and owners' equity), and the effects of transactions, events, and circumstances that change its resources and claims to those resources.*[8]

We can draw some conclusions from these three objectives and from a study of the environment in which financial reporting is carried out. For example, financial reporting should:

- Provide information about an enterprise's past performance because such information is a basis for predicting future enterprise performance.
- Focus on earnings and its components, despite the emphasis in the objectives on cash flows. (Earnings computed under the accrual basis generally provide a better indicator of ability to generate favorable cash flows than do statements prepared under the cash basis.)

On the other hand, financial reporting does not seek to:

- Measure the value of an enterprise but to provide information useful in determining its value.
- Evaluate management's performance, predict earnings, assess risk, or estimate earning power but to provide information to persons who wish to make these evaluations.

7Ibid.

8Ibid.

These conclusions are some of those reached in *Statement of Financial Accounting Concepts No. 1*. As the Board stated, these statements "are intended to establish the objectives and concepts that the Financial Accounting Standards Board will use in developing standards of financial accounting and reporting".[9] How successful the Board will be in the approach adopted remains to be seen.

6.11 Qualitative characteristics

Accounting information should possess **qualitative characteristics** to be useful in decision making. This criterion is difficult to apply. The usefulness of accounting information in a given instance depends not only on information characteristics but also on the capabilities of the decision makers and their professional advisers. Accountants cannot specify who the decision makers are, their characteristics, the decisions to be made, or the methods chosen to make the decisions. Therefore, they direct their attention to the characteristics of accounting information. Note the FASB's graphic summarization of the qualities accountants consider in Exhibit 31[10]

To have **relevance**, information must be pertinent to or affect a decision. The information must make a difference to someone who does not already have it. Relevant information makes a difference in a decision either by affecting users' predictions of outcomes of past, present, or future events or by confirming or correcting expectations. Note that information need not be a prediction to be useful in developing, confirming, or altering expectations. Expectations are commonly based on the present or past. For example, any attempt to predict future earnings of a company would quite likely start with a review of present and past earnings. Although information that merely confirms prior expectations may be less useful, it is still relevant because it reduces uncertainty.

Critics have alleged that certain types of accounting information lack relevance. For example, some argue that a cost of USD 1 million paid for a tract of land 40 years ago and reported in the current balance sheet at that amount is irrelevant (except for possible tax implications) to users for decision making today. Such criticism has encouraged research into the types of information relevant to users. Some suggest using a different valuation basis, such as current cost, in reporting such assets.

Predictive value and feedback value Since actions taken now can affect only future events, information is obviously relevant when it possesses **predictive value**, or improves users' abilities to predict outcomes of events. Information that reveals the relative success of users in predicting outcomes possesses **feedback value**. Feedback reports on past activities and can make a difference in

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9Ibid., p. i.

10FASB, *Statement of Financial Accounting Concepts No. 2*, p. 15.

decision making by (1) reducing uncertainty in a situation, (2) refuting or confirming prior expectations, and (3) providing a basis for further predictions. For example, a report on the first quarter's earnings of a company reduces the uncertainty surrounding the amount of such earnings, confirms or refutes the predicted amount of such earnings, and provides a possible basis on which to predict earnings for the full year. Remember that although accounting information may possess predictive value, it does not consist of predictions. Making predictions is a function performed by the decision maker.

Timeliness Timeliness requires accountants to provide accounting information at a time when it may be considered in reaching a decision. Utility of information decreases with age. To know what the net income for 2010 was in early 2011 is much more useful than receiving this information a year later. If information is to be of any value in decision making, it must be available before the decision is made. If not, the information is of little value. In determining what constitutes timely information, accountants consider the other qualitative characteristics and the cost of gathering information. For example, a timely estimate for uncollectible accounts may be more valuable than a later, verified actual amount. Timeliness alone cannot make information relevant, but potentially relevant information can be rendered irrelevant by a lack of timeliness.

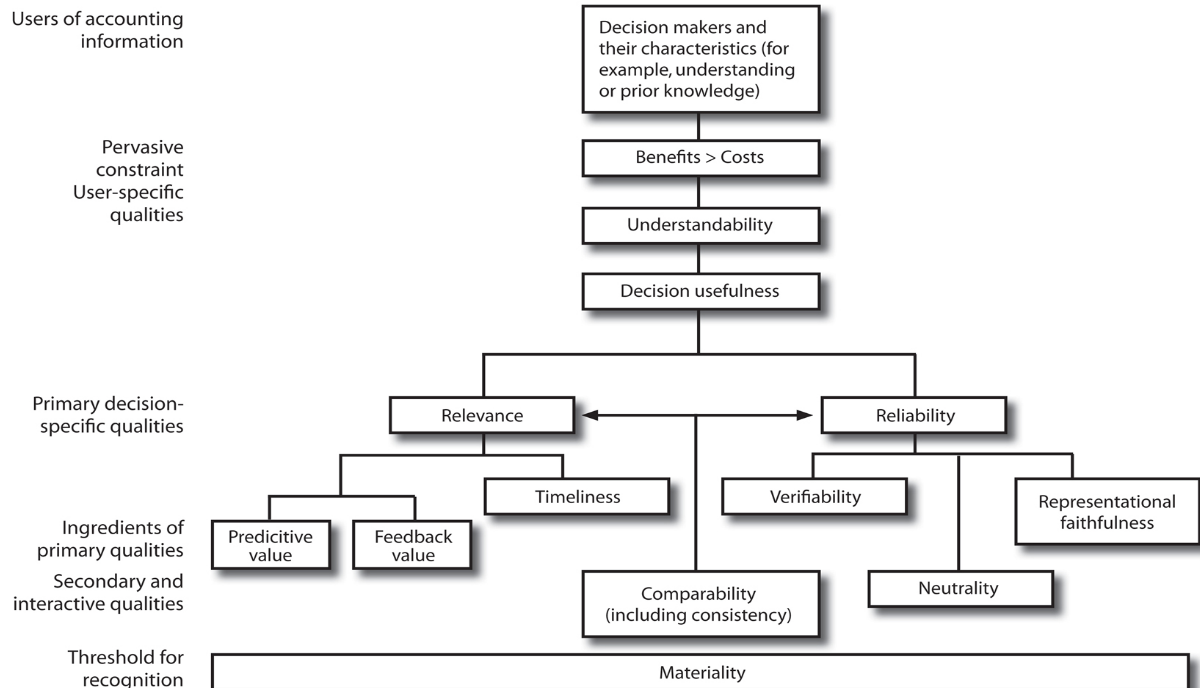

Exhibit 31: A hierarchy of accounting qualities

In addition to being relevant, information must be reliable to be useful. Information has **reliability** when it faithfully depicts for users what it purports to represent. Thus, accounting information is reliable if users can depend on it to reflect the underlying economic activities of the organization. The reliability of information depends on its representational faithfulness, verifiability, and neutrality. The information must also be complete and free of bias.

Representational faithfulness To gain insight into this quality, consider a map. When it shows roads and bridges where roads and bridges actually exist, a map possesses **representational faithfulness**. A correspondence exists between what is on the map and what is present physically. Similarly, representational faithfulness exists when accounting statements on economic activity correspond to the actual underlying activity. Where there is no correspondence, the cause may be (1) bias or (2) lack of completeness.

- **Effects of bias**. Accounting measurements contain **bias** if they are consistently too high or too low. Accountants create bias in accounting measurements by choosing the wrong measurement method or introducing bias either deliberately or through lack of skill.
- **Completeness**. To be free from bias, information must be sufficiently complete to ensure that it validly represents underlying events and conditions. **Completeness** means disclosing all significant information in a way that aids understanding and does not mislead. Firms can reduce the relevance of information by omitting information that would make a difference to users. Currently, full disclosure requires presentation of a balance sheet, an income statement, a statement of cash flows, and necessary notes to the financial statements and supporting schedules. Also required in annual reports of corporations are statements of changes in stockholders' equity which contain information included in a statement of retained earnings. Such statements must be complete, with items properly classified and segregated (such as reporting sales revenue separately from other revenues). Required disclosures may be made in (1) the body of the financial statements, (2) the notes to such statements, (3) special communications, and/or (4) the president's letter or other management reports in the annual report.

Another aspect of completeness is fully disclosing all changes in accounting principles and their effects.[11] Disclosure should include unusual activities (loans to officers), changes in expectations (losses on inventory), depreciation expense for the period, long-term obligations entered into that are not recorded by the accountant (a 20-year lease on a building), new arrangements with certain groups (pension and profit-sharing plans for employees), and significant events that occur after the date of the

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11APB, APB Opinion No. 20, "Accounting Changes" (New York: AICPA, July 1971).

statements (loss of a major customer). Firms must also disclose accounting policies (major principles and their manner of application) followed in preparing the financial statements.[12] Because of its emphasis on disclosure, we often call this aspect of reliability the full disclosure principle.

Verifiability Financial information has **verifiability** when independent measurers can substantially duplicate it by using the same measurement methods. Verifiability eliminates measurer bias. The requirement that financial information be based on objective evidence arises from the demonstrated needs of users for reliable, unbiased financial information. Unbiased information is especially necessary when parties with opposing interests (credit seekers and credit grantors) rely on the same information. If the information is verifiable, this enhances the reliability of information.

Financial information is never completely free of subjective opinion and judgment; it always possesses varying degrees of verifiability. Canceled checks and invoices support some measurements. Accountants can never verify other measurements, such as periodic depreciation charges, because of their very nature. Thus, financial information in many instances is verifiable only in that it represents a consensus of what other accountants would report if they followed the same procedures.

Neutrality Neutrality means that the accounting information should be free of measurement method bias. The primary concern should be relevance and reliability of the information that results from application of the principle, not the effect that the principle may have on a particular interest. Non-neutral accounting information favors one set of interested parties over others. For example, a particular form of measurement might favor stockholders over creditors, or vice versa. "To be neutral, accounting information must report economic activity as faithfully as possible, without coloring the image it communicates for the purpose of influencing behavior in some particular direction."[13] Accounting standards are not like tax regulations that deliberately foster or restrain certain types of activity. Verifiability seeks to eliminate measurer bias; neutrality seeks to eliminate measurement method bias.

When **comparability** exists, reported differences and similarities in financial information are real and not the result of differing accounting treatments. Comparable information reveals relative strengths and weaknesses in a single company through time and between two or more companies at the same time.

Consistency requires that a company use the same accounting principles and reporting practices through time. Consistency leads to comparability of financial information for a single company

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12APB, APB Opinion No. 22, "Disclosure of Accounting Policies" (New York: AICPA, April 1972).

13FASB, *Statement of Financial Accounting Concepts No. 2,* par. 100.

through time. Comparability between companies is more difficult because they may account for the same activities in different ways. For example, Company B may use one method of depreciation, while Company C accounts for an identical asset in similar circumstances using another method. A high degree of inter-company comparability in accounting information does not exist unless accountants are required to account for the same activities in the same manner across companies and through time.

As we show in Exhibit 31, accountants must consider one pervasive constraint and one threshold for recognition in providing useful information. First, the benefits secured from the information must be greater than the costs of providing that information. Second, only material items need be disclosed and accounted for strictly in accordance with generally accepted accounting principles (GAAP). We discussed cost-benefit and materiality earlier in the chapter.

An accounting perspective: Use of technology

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You can check out the latest developments at the FASB to see how the rules of accounting might be changing. You can investigate facts about the FASB, press releases, exposure drafts, publications, emerging issues, board actions, forthcoming meetings, and many other topics.

6.12 The basic elements of financial statements

Thus far we have discussed objectives of financial reporting and qualitative characteristics of accounting information. A third important task in developing a conceptual framework for any discipline is identifying and defining its basic elements. The FASB identified and defined the basic elements of financial statements in *Concepts Statement No. 3*. Later, *Concepts Statement No. 6* revised some of the definitions. We defined most of the terms earlier in this text in a less technical way; the more technical definitions follow. (These items are not repeated in this chapter's Key terms.)

Assets are probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.

Liabilities are probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Equity or net assets is the residual interest in the assets of an entity that remains after deducting its liabilities. In a business enterprise, the equity is the ownership interest. In a not-for-profit

organization, which has no ownership interest in the same sense as a business enterprise, net assets is divided into three classes based on the presence or absence of donor-imposed restrictions—permanently restricted, temporarily restricted, and unrestricted net assets.

Comprehensive income is the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. It includes all changes in equity during a period except those resulting from investments by owners and distributions to owners.

Revenues are inflows or other enhancements of assets of any entity or settlements of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations.

Expenses are outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations.

Gains are increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from revenues or investments by owners.

Losses are decreases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from expenses or distributions to owners.

Investments by owners are increases in equity of a particular business enterprise resulting from transfers to it from other entities of something valuable to obtain or increase ownership interests (or equity) in it. Assets are most commonly received as investments by owners, but that which is received may also include services or satisfaction or conversion of liabilities of the enterprise.

Distributions to owners are decreases in equity of a particular business enterprise resulting from transferring assets, rendering services, or incurring liabilities by the enterprise to owners. Distributions to owners decrease ownership interest (or equity) in an enterprise.[14]

14FASB, *Statement of Financial Accounting Concepts No. 6*.

An accounting perspective: Business insight

Accountants record expenditures on physical resources such as land, buildings, and equipment that benefit future periods as assets. However, they expense expenditures on human resources for hiring and training that benefit future periods. Also, when a computer is dropped and destroyed, accountants record a loss. However, when the president of the company dies, they record no loss. Should the accounting model be changed regarding the accounting for human resources?

6.13 Recognition and measurement in financial statements

In December 1984, the FASB issued *Statement of Financial Accounting Concepts No. 5*, "Recognition and Measurement in Financial Statements of Business Enterprises", describing recognition criteria and providing guidance for the timing and nature of information included in financial statements.[15] The recognition criteria established in the Statement are fairly consistent with those used in current practice. The Statement indicates, however, that when information more useful than currently reported information is available at a reasonable cost, it should be included in financial statements.

6.14 Summary of significant accounting policies

As part of their annual reports, companies include summaries of significant accounting policies. These policies assist users in interpreting the financial statements. To a large extent, accounting theory determines the nature of these policies. Companies must follow generally accepted accounting principles in preparing their financial statements.

The accounting policies of The Walt Disney Company, one of the world's leading entertainment companies, as contained in a recent annual report follow. After each, the chapter of this text where we discuss that particular policy is in parentheses. While a few of the items have already been covered, the remainder offer a preview of the concepts explained in later chapters.

15FASB, *Statement of Financial Accounting Concepts No. 5,* "Recognition and Measurement in Financial Statements of Business Enterprises" (Stamford, Conn., 1984). Copyright © by the Financial Accounting Standards Board, High Ridge Park, Stamford, Connecticut 06905, U.S.A. Copies of the complete document are available from the FASB. (In case you are wondering why we do not mention *Statement of Financial Accounting Concepts No. 4*, it pertains to accounting for not-for-profit organizations and is, therefore, not relevant to this text.)

An ethical perspective: Maplehurst company

Maplehurst Company manufactures large spinning machines for the textile industry. The company had purchased USD 100,000 of small hand tools to use in its business. The company's accountant recorded the tools in an asset account and was going to write them off over 20 years. Management wanted to write these tools off as an expense of this year because revenues this year had been abnormally high and were expected to be lower in the future. Management's goal was to smooth out income rather than showing sharp increases and decreases. When told by the accountant that USD 100,000 was a material item that must be accounted for in a theoretically correct manner, management decided to consider the tools as consisting of 10 groups, each having a cost of USD 10,000. Since amounts under USD 20,000 are considered immaterial for this company, all of the tools could then be charged to expense this year. The accountant is concerned about this treatment. She doubts that she could successfully defend management's position if the auditors challenge the expensing of these items.

6.15 Significant accounting policies

6.15.1 Principles of consolidation

The consolidated financial statements of the Company include the accounts of The Walt Disney Company and its subsidiaries after elimination of inter-company accounts and transactions.

Investments in affiliated companies are accounted for using the equity method. (Chapter 14)

6.15.2 Accounting changes

The Company changed its method of accounting for pre-opening costs (see Note 12). These changes had no cash impact.

The pro forma amounts presented in the consolidated statement of income reflect the effect of retroactive application of expensing pre-opening costs. (Chapters 13 and 14)

6.15.3 Revenue recognition

Revenues from the theatrical distribution of motion pictures are recognized when motion pictures are exhibited. Television licensing revenues are recorded when the program material is available for

telecasting by the licensee and when certain other conditions are met. Revenues from video sales are recognized on the date that video units are made widely available for sale by retailers.

Revenues from participants and sponsors at the theme parks are generally recorded over the period of the applicable agreements commencing with the opening of the related attraction. (Chapter 5)

6.15.4 Cash, cash equivalents and investments

Cash and cash equivalents consist of cash on hand and marketable securities with original maturities of three months or less. (Chapter 8)

SFAS 115 requires that certain investments in debt and equity securities be classified into one of three categories. Debt securities that the Company has the positive intent and ability to hold to maturity are classified as "held-to-maturity" and reported at amortized cost. Debt securities not classified as held-to-maturity and marketable equity securities are classified as either "trading" or "available-for-sale", and are recorded at fair value with unrealized gains and losses included in earnings or stockholders' equity, respectively. (Chapter 14)

6.15.5 Merchandise inventories

Carrying amounts of merchandise, materials and supplies inventories are generally determined on a moving average cost basis and are stated at the lower of cost or market. (Chapter 7)

6.15.6 Film and television costs

Film and television production and participation costs are expensed based on the ratio of the current period's gross revenues to estimated total gross revenues from all sources on an individual production basis. Estimates of total gross revenues are reviewed periodically and amortization is adjusted accordingly.

Television broadcast rights are amortized principally on an accelerated basis over the estimated useful lives of the programs. (Chapter 11)

6.15.7 Theme parks, resorts and other property

Theme parks, resorts and other property are carried at cost. Depreciation is computed on the straight-line method based upon estimated useful lives ranging from three to fifty years. (Chapter 3)

6.15.8 Other assets

Rights to the name, likeness and portrait of Walt Disney, goodwill and other intangible assets are amortized over periods ranging from two to forty years. (Chapter 11)

6.15.9 Risk management contracts

In the normal course of business, the Company employs a variety of off-balance-sheet financial instruments to manage its exposure to fluctuations in interest and foreign currency exchange rates, including interest rate and cross-currency swap agreements, forward and option contracts, and interest rate exchange-traded futures. The company designates interest rate and cross-currency swaps as hedges of investments and debt, and accrues the differential to be paid or received under the agreements as interest rates change over the lives of the contracts. Differences paid or received on swap agreements are recognized as adjustments to interest income or expense over the life of the swaps, thereby adjusting the effective interest rate on the underlying investment or obligation. Gains and losses on the termination of swap agreements, prior to the original maturity, are deferred and amortized to interest income or expense over the original term of the swaps. Gains and losses arising from interest rate futures, forwards and option contracts, and foreign currency forward and option contracts are recognized in income or expense as offsets of gains and losses resulting from the underlying hedged transactions. (Chapter 14)

Cash flows from interest rate and foreign exchange risk management activities are classified in the same category as the cash flows from the related investment, borrowing or foreign exchange activity. (Chapter 16)

The Company classifies its derivative financial instruments as held or issued for purposes other than trading. (Chapter 14)

6.15.10 Earnings per share

Earnings per share amounts are based upon the weighted average number of common and common equivalent shares outstanding during the year. Common equivalent shares are excluded from the computation in periods in which they have an antidilutive effect. (Chapter 13)

As you proceed through the remaining chapters, you can see the accounting theories introduced in this chapter being applied. In Chapter 6, for instance, we discuss why sales revenue is recognized and recorded only after goods have been delivered to the customer. So far, we have used service companies to illustrate accounting techniques. Chapter 6 introduces merchandising operations. Merchandising companies, such as clothing stores, buy goods in their finished form and sell them to customers.

6.16 Understanding the learning objectives

- The major underlying assumptions or concepts of accounting are (1) business entity, (2) going concern (continuity), (3) money measurement, (4) stable dollar, (5) periodicity, and (6) accrual basis and periodicity.
- Other basic accounting concepts that affect the accounting for entities are (1) general-purpose financial statements, (2) substance over form, (3) consistency, (4) double entry, and (5) articulation.
- The major principles include exchange-price (or cost), revenue recognition, matching, gain and loss recognition, and full disclosure. Major exceptions to the realization principle include cash collection as point of revenue recognition, installment basis of revenue recognition, and the percentage-of-completion method of recognizing revenue on long-term construction projects.
- Modifying conventions include cost-benefit, materiality, and conservatism.
- The FASB has defined the objectives of financial reporting, qualitative characteristics of accounting information, and elements of financial statements.
- Financial reporting objectives are the broad overriding goals sought by accountants engaging in financial reporting.
- Qualitative characteristics are those that accounting information should possess to be useful in decision making. The two primary qualitative characteristics are relevance and reliability. Another qualitative characteristic is comparability.
- Pervasive constraints include cost-benefit analysis and materiality.
- The FASB has identified and defined the basic elements of financial statements.
- The FASB has also described revenue recognition criteria and provided guidance as to the timing and nature of information to be included in financial statements.
- The summary of significant accounting policies aid users in interpreting the financial statements.
- To a large extent, accounting theory determines the nature of those policies.

6.16.1 Demonstration problem

For each of the following transactions or circumstances and the entries made, state which, if any, of the assumptions, concepts, principles, or modifying conventions of accounting have been violated. For each violation, give the entry to correct the improper accounting assuming the books have not been closed.

During the year, Dorsey Company did the following:

- Had its buildings appraised. They were found to have a market value of USD 410,000, although their book value was only USD 380,000. The accountant debited the Buildings and Accumulated Depreciation—Buildings accounts for USD 15,000 each and credited Paid-in Capital—From Appreciation. No separate mention was made of this action in the financial statements.
- Purchased new electric pencil sharpeners for its offices at a total cost of USD 60. These pencil sharpeners were recorded as assets and are being depreciated over five years.

6.16.1.1 Solution to demonstration problem

- The cost principle and the modifying convention of conservatism may have been violated. Such write-ups simply are not looked on with favor in accounting. To correct the situation, the entry made needs to be reversed:

Paid-in Capital	**30,000**	
Building		**15,000**
Accumulated Depreciation—Building		**15,000**

- Theoretically, no violations occurred, but the cost of compiling insignificant information could be considered a violation of acceptable accounting practice. As a practical matter, the USD 60 could have been expensed on materiality grounds.

6.16.2 Key terms

Accounting theory "A set of basic concepts and assumptions and related principles that explain and guide the accountant's actions in identifying, measuring, and communicating economic information".

Bias Exists when accounting measurements are consistently too high or too low.

Business entity concept The specific unit for which accounting information is gathered. Business entities have a separate existence from owners, creditors, employees, customers, other interested parties, and other businesses.

Comparability A qualitative characteristic of accounting information; when information is comparable, it reveals differences and similarities that are real and are not the result of differing accounting treatments.

Completed-contract method A method of recognizing revenue on long-term projects under which no revenue is recognized until the period in which the project is completed; similar to recognizing revenue upon the completion of a sale.

Completeness A qualitative characteristic of accounting information; requires disclosure of all significant information in a way that aids understanding and does not mislead; sometimes called the full disclosure principle.

Conservatism Being cautious or prudent and making sure that net assets and net income are not overstated.

Consistency Requires a company to use the same accounting principles and reporting practices through time.

Cost-benefit consideration Determining whether benefits of including information in financial statements exceed costs.

Cost principle See Exchange-price principle.

Earning principle The requirement that revenue be substantially earned before it is recognized (recorded).

Exchange-price (or cost) principle Transfers of resources are recorded at prices agreed on by the parties at the time of the exchange.

Feedback value A qualitative characteristic that information has when it reveals the relative success of users in predicting outcomes.

Financial reporting objectives The broad overriding goals sought by accountants engaging in financial reporting.

Full disclosure principle Information important enough to influence the decisions of an informed user of the financial statements should be disclosed.

Gain and loss recognition principle Gains may be recorded only when realized, but losses should be recorded when they first become evident.

Gains Typically result from the sale of long-term assets for more than their book value.

Going-concern (continuity) assumption The assumption that an entity will continue to operate indefinitely unless strong evidence exists that the entity will terminate.

Historical cost The amount paid, or the fair market value of a liability incurred or other resources surrendered, to acquire an asset and place it in a condition and position for its intended use.

Installment basis A revenue recognition procedure in which the percentage of total gross margin recognized in a period on an installment sale is equal to the percentage of total cash from the sale that is received in that period.

Liquidation Terminating a business by ceasing business operations and selling off its assets.

Losses Asset expirations that are usually involuntary and do not create revenues.

Matching principle Expenses should be recognized as they are incurred to produce revenues.

Materiality A modifying convention that allows the accountant to deal with immaterial (unimportant) items in an expedient but theoretically incorrect manner; also a qualitative characteristic specifying that financial accounting report only information significant enough to influence decisions or evaluations.

Modifying conventions Customs emerging from accounting practice that alter the results obtained from a strict application of accounting principles; conservatism is an example.

Money measurement Use of a monetary unit of measurement, such as the dollar, instead of physical or other units of measurement—feet, inches, grams, and so on.

Neutrality A qualitative characteristic that requires accounting information to be free of measurement method bias.

Percentage-of-completion method A method of recognizing revenue based on the estimated stage of completion of a long-term project. The stage of completion is measured by comparing actual costs incurred in a period with total estimated costs to be incurred in all periods.

Period costs Costs that cannot be traced to specific products and are expensed in the period incurred.

Periodicity (time periods) assumption An assumption of the accountant that an entity's life can be divided into time periods for reporting its economic activities.

Predictive value A qualitative characteristic that information has when it improves users' abilities to predict outcomes of events.

Product costs Costs incurred in the acquisition or manufacture of goods. Product costs are accounted for as if they were attached to the goods, with the result that they are charged to expense when the goods are sold.

Qualitative characteristics Characteristics that accounting information should possess to be useful in decision making.

Realization principle A principle that directs that revenue is recognized only after the seller acquires the right to receive payment from the buyer.

Relevance A qualitative characteristic requiring that information be pertinent to or affect a decision.

Reliability A qualitative characteristic requiring that information faithfully depict for users what it purports to represent.

Representational faithfulness A qualitative characteristic requiring that accounting statements on economic activity correspond to the actual underlying activity.

Revenue recognition principle The principle that revenues should be earned and realized before they are recognized (recorded).

Stable dollar assumption An assumption that the dollar is a reasonably stable unit of measurement.

Timeliness A qualitative characteristic requiring that accounting information be provided at a time when it may be considered before making a decision.

Verifiability A qualitative characteristic of accounting information; information is verifiable when it can be substantially duplicated by independent measurers using the same measurement methods.

6.16.3 Self-test

True-false

Indicate whether each of the following statements is true or false.

- The business entity concept assumes that each business has an existence separate from all parties except its owners.
- When the substance of a transaction differs from its legal form, the accountant should record the economic substance.
- The matching principle is fundamental to the accrual basis of accounting.
- Exceptions to the realization principle include the installment basis of revenue recognition for sales revenue and the completed-contract method for long-term construction projects.
- Immaterial items do not have to be recorded at all.
- The conceptual framework project resulted in identifying two primary qualitative characteristics that accounting information should possess—relevance and reliability.

Multiple-choice

Select the best answer for each of the following questions.

The underlying assumptions of accounting includes all the following except:

a. Business entity.

b. Going concern.

c. Matching.

d. Money measurement and periodicity.

The concept that requires companies to use the same accounting practices and reporting practices through time is:

a. Substance over form.

b. Consistency.

c. Articulation.

d. None of the above.

Which of the following statements is false regarding the revenue recognition principle?

a. Revenue must be substantially earned before it is recognized.

b. The accountant usually recognizes revenue before the seller acquires the right to receive payment from the buyer.

c. Some small companies use the cash basis of accounting.

d. Under the installment basis, the gross margin recognized in a period is equal to the amount of cash received from installment sales times the gross margin percentage for the year of sale.

Assume the following facts regarding the construction of a bridge:

Construction costs this period...... USD 3,000,000

Total estimated construction costs...10,000,000

Total sales price.............. 15,000,000

The revenue that should be recognized this period is:

a. USD 3,000,000.

b. USD 4,500,000.

c. USD 5,000,000.

d. USD 6,500,000.

Modifying conventions include all of the following except:

a. Periodicity.

b. Cost-benefit.

c. Materiality.

d. Conservatism.

Which of the following is not part of the conceptual framework project?

a. Objectives of financial reporting.

b. Quantitative characteristics.

c. Qualitative characteristics.

d. Basic elements of financial statements.

Now turn to "Answers to self-test" at the end of the chapter to check your answers.

6.16.4 Questions

- Name the assumptions underlying generally accepted accounting principles. Comment on the validity of the stable unit of measurement assumption during periods of high inflation.
- Why does the accountant use the business entity concept?
- When is the going-concern assumption not to be used?
- What is meant by the term accrual basis of accounting? What is its alternative?
- What does it mean to say that accountants record substance rather than form?
- If a company changes an accounting principle because the change better meets the information needs of users, what disclosures must be made?
- What is the exchange-price (or cost) principle? What is the significance of adhering to this principle?
- What two requirements generally must be met before recognizing revenue in a period?
- Under what circumstances, if any, is the receipt of cash an acceptable time to recognize revenue?
- What two methods may be used in recognizing revenues on long-term construction contracts?
- Define expense. What principles guide the recognition of expense?

- How does an expense differ from a loss?
- What is the full disclosure principle?
- What role does cost-benefit play in financial reporting?
- What is meant by the accounting term conservatism? How does it affect the amounts reported in the financial statements?
- Does materiality relate only to the relative size of dollar amounts?
- Identify the three major parts of the conceptual framework project.
- What are the two primary qualitative characteristics?
- **Real world question** A recent annual report of the American Ship Building Company stated:

Revenues, costs, and profits applicable to construction and conversion contracts are included in the consolidated statements of operations using the... percentage-of- completion accounting method.... The completed contract method was used for income tax reporting in the years this method was allowed.

Why might the management of a company want to use two different methods for accounting and tax purposes?

- **Real world question** A recent annual report of Chevron Corporation stated:

Environmental expenditures that relate to current or future revenues are expensed or capitalized as appropriate. Expenditures that relate to an existing condition caused by past operations, and do not contribute to current or future revenue generation, are expensed.

Which principle of accounting is being followed by this policy?

- What is the purpose of including a "Summary of significant accounting policies" in the company's annual report?

6.16.5 Exercises

Exercise A Match the items in Column A with the proper descriptions in Column B.

Column A	Column B
Going concern (continuity).	a. An assumption relied on in the preparation of the primary financial statements that would be unreasonable when the inflation rate is high.
Consistency.	b. Concerned with relative dollar amounts.
Disclosure.	c. The usual basis for the recording of assets.
Periodicity.	d. Required if the accounting treatment differs from that previously used for a particular item.
Conservatism.	e. An assumption that would be unreasonable to use in reporting on a firm that had become insolvent.
Stable dollar.	f. None of these.
Matching.	g. Requires a company to use the same accounting procedures and practices through time.
Materiality.	h. An assumption that the life of an entity can be subdivided into time periods for reporting purposes.
Exchange-price (cost).	i. Discourages undue optimism in measuring and reporting net assets and net income.
Business entity.	j. Requires separation of personal from business activities in the recording and reporting processes.

Exercise B Parker Clothing Company sells its products on an installment sales basis. Data for 2010 and 2011 follow:

	2010	2011
Installment sales.........................	*$800,000*	*$960,000*
Cost of goods sold on installment sales	*560,000*	*720,000*
Other expenses..........................	*120,000*	*160,000*
Cash collected from 2010 sales.............	*480,000*	*240,000*
Cash collected from 2011 sales.............		*640,000*

a. Compute the net income for 2011, assuming use of the accrual (sales) basis of revenue recognition.

b. Compute the net income for 2011, assuming use of the installment basis of recognizing gross margin.

Exercise C A company has a contract to build a ship at a price of USD 500 million and an estimated cost of USD 400 million. Costs of USD 100 million were incurred. Under the percentage-of-completion method, how much revenue would be recognized?

Exercise D A company follows a practice of expensing the premium on its fire insurance policy when the policy is paid. In 2010, the company charged to expense the USD 6,000 premium paid on a three-year policy covering the period 2010 July 1, to 2010 June 30. In 2010, a premium of USD 5,400 was charged to expense on the same policy for the period 2010 July 1, to 2010 July 30.

a. State the principle of accounting that was violated by this practice.

b. Compute the effects of this violation on the financial statements for the calendar year 2010.

c. State the basis on which the company's practice might be justified.

Exercise E Match the descriptions in Column B with the accounting qualities in Column A. Use some descriptions more than once.

Column A: A**ccounting qualities**	**Column B: Descriptions**
Relevance.	a. Users of accounting information.
Feedback value.	b. Pervasive constraint.
Decision makers.	c . User-specific qualities.
Representational faithfulness.	d. Primary decision-specific qualities.
Reliability.	e. Ingredients of primary qualities.
Comparability.	f. Secondary and interactive qualities.
Benefits exceed costs.	g. Threshold for recognition.
Predictive value.	
Timeliness.	
Decision usefulness.	
Verifiability.	
Understandability.	
Neutrality.	
Materiality.	

6.16.6 Problems

Problem A Select the best answer to each of the following questions:

The assumption that each business has an existence separate from its owners, creditors, employees, customers, other interested parties, and other businesses is the:

a. Going-concern assumption.

b. Business entity concept.

c. Separate entity concept.

d. Corporation concept.

Companies should use liquidation values to report assets if which of the following conditions exists?

a. There are changes in the value of the dollar.

b. The periodicity assumption is applied.

c. The company is not a going concern and will be dissolved.

d. The accrual basis of accounting is not used.

Assume that a company has paid for advertising and that the ad has already appeared. The company chose to report the item as prepaid advertising and includes it among the assets on the balance sheet. Previously, the company had always expensed expenditures such as this. This practice is a violation of:

a. Generally accepted accounting principles.

b. The matching concept.

c. The consistency concept.

d. All of the above.

Recording revenue only after the seller has obtained the right to receive payment from the buyer for merchandise sold or services performed is called the:

a. Earning principle.

b. Installment basis.

c. Realization principle.

d. Completed-contract method.

Problem B Ramirez Video, Inc., sells video recorders under terms calling for a small down payment and monthly payments spread over three years. Following are data for the first three years of the company's operations:

2008	***2009***	***2010***
Gross margin rate 30%	40%	50%
Cash collected in 2010:		
From sales in............................$216,000		
From sales in...	$288,000	
From sales in...		$480,000

Total sales for 2010 were USD 1,600,000, while general and selling expenses amounted to USD 400,000.

a. Compute net income for 2010, assuming revenues are recognized at the time of sale.

b. Compute net income for 2010, using the installment method of accounting for sales and gross margin.

Problem C The following data relate to Merit Construction Company's long-term construction projects for the year 2010:

	Completed Projects	***Incomplete Projects***
Contract price....................................	$20,000,000	$100,000,000
Costs incurred prior to 2010	 3,700,000	16,000,000
Costs incurred in 2010........................	 11,100,000	32,000,000
Estimated costs to be incurred in future years................................	- 0-	32,000,000

General and administrative expenses incurred in 2010 amounted to USD 2 million, none of which is to be considered a construction cost.

a. Compute net income for 2010 under the completed-contract method.

b. Compute net income for 2010 under the percentage-of-completion method.

Problem D For each of the following numbered items, state the letter or letters of the principle(s), assumption(s), or concept(s) used to justify the accounting procedure followed. The accounting procedures are all correct.

a. Business entity.

b. Conservatism.

c. Earning principle of revenue recognition.

d. Going concern (continuity).

e. Exchange-price (cost) principle.

f. Matching principle.

g. Period cost (or principle of immediate recognition of expense).

h. Realization principle.

i. Stable dollar assumption.

Inventory is recorded at the lower of cost or market value.

A truck purchased in January was reported at 80 per cent of its cost even though its market value at year-end was only 70 per cent of its cost.

The collection of USD 40,000 of cash for services to be performed next year was reported as a current liability.

The president's salary was treated as an expense of the year even though he spent most of his time planning the next two years' activities.

No entry was made to record the company's receipt of an offer of USD 800,000 for land carried in its accounts at USD 435,000.

A supply of printed stationery, checks, and invoices with a cost of USD 8,500 was treated as a current asset at year-end even though it had no value to others.

A tract of land acquired for USD 180,000 was recorded at that price even though it was appraised at USD 230,000, and the company would have been willing to pay that amount.

The company paid and charged to expense the USD 4,200 paid to Craig Nelson for rent of a truck owned by him. Craig Nelson is the sole stockholder of the company.

Problem E Match the descriptions in Column B with the proper terms in Column A.

	Column A		*Column B*
1.	Financial reporting objectives.	***a.***	Information is free of measurement method bias.
2.	Qualitative characteristics.	***b.***	The benefits exceed the costs.
3.	Relevance.	***c.***	Relatively large items must be accounted for in a theoretically correct way.
4.	Predictive value.	***d.***	The information can be substantially duplicated by independent measurers using the same measurement methods.
5.	Feedback value.	***e.***	When information improves users' ability to predict outcomes of events.
6.	Timeliness.	***f.***	Broad overriding goals sought by accountants engaging in financial reporting.
7.	Reliability.	***g.***	When information is pertinent or bears on a decision.
8.	Representational faithfulness.	***h.***	The characteristics that accounting information should possess to be useful in decision making.
9.	Verifiability.	***i.***	Information that reveals the relative success of users in predicting outcomes.
10.	Neutrality.	***j.***	When accounting statements on economic activity correspond to the actual underlying activity.
11.	Comparability.	***k.***	When information is provided soon enough that it may be considered in decision making.
12.	Consistency.	***l.***	When information faithfully depicts for users what it purports to represent.
13.	Cost-benefit.	***m.***	Requires a company to use the same accounting principles and reporting practices through time.
14.	Materiality.	***n.***	When reported differences and similarities in information are real and not the result of differing accounting treatments.

6.16.7 Alternate problems

Alternate problem A Select the best answer to each of the following questions:

A set of basic concepts and assumptions and related principles that explain and guide the accountant's actions in identifying, measuring, and communicating economic information is called:

a. Accounting theory.

b. Accounting rules.

c. Accrual basis.

d. Matching concept.

Which of the following statements is false?

a. Several separate legal entities properly may be considered to be one accounting entity.

b. The stable dollar assumption is used only when the dollar is absolutely stable.

c. Publicly held corporations generally prepare monthly financial statements for internal management and publish quarterly and annual financial statements for users outside the company.

d. Without the periodicity assumption, a business would have only one time period running from the inception of the business to its termination.

Which of the following statements is true?

a. When the substance of a transaction conflicts with the legal form of the transaction, the accountant should be guided by the legal form in recording the transaction.

b. The consistency concept prohibits a change in accounting principle even when such a change would better meet the information needs of financial statement users.

c. Under the double-entry approach, each transaction must be recorded with one debit and one credit of equal dollar amounts.

d. Special-purpose financial information for a specific decision, such as whether or not to purchase a new machine, is best obtained from the detailed accounting records rather than from the financial statements.

Which of the following statements is true?

a. All assets are carried indefinitely at their original costs in the financial statements.

b. Liabilities are measured in the cash to be paid or the value of services to be performed to satisfy the liabilities.

c. Accounting principles are derived by merely summarizing accounting practices used to date.

d. Accountants can easily measure all changes in assets and liabilities since they never involve estimates or calculations.

Which of the following statements is false?

a. The exchange-price principle is also called the cost principle.

b. The matching principle is closely related to the revenue recognition principle.

c. The installment sales method recognizes revenue sooner than it would normally be recognized.

d. The percentage-of-completion method recognizes revenue sooner than the completed- contract method.

Alternate problem B Nevada Real Estate Sales Company sells lots in its development in Dry Creek Canyon under terms calling for small cash down payments with monthly installment payments spread over a few years. Following are data on the company's operations for its first three years:

	2008	*2009*	*2010*
Gross margin rate	..... 45%	48%	50%
Cash collected in 2010 from sales of lots made in...............	..... $640,000	$800,000	$900,000

The total selling price of the lots sold in 2010 was USD 3,000,000, while general and administrative expenses (which are not included in the costs used to determine gross margin) were USD 800,000.

a. Compute net income for 2010 assuming revenue is recognized on the sale of a lot.

b. Compute net income for 2010 assuming use of the installment basis of accounting for sales and gross margin.

Alternate problem C The following contract prices and costs relate to all of Orlando Construction Company's long-term construction projects (in millions of dollars):

		Costs Incurred		
	Contract Price	*Prior to 2010*	*In 2010*	*Cost to Be Incurred in Future Years*
On projects completed in 2010	$46	$4	$36	$0
On incomplete projects	144	24	48	48

General and administrative expenses for 2010 amounted to USD 1,200,000. Assume that the general and administrative expenses are not to be treated as a part of the construction cost.

a. Compute net income for 2010 using the completed-contract method.

b. Compute net income for 2010 using the percentage-of-completion method.

Alternate problem D In each of these circumstances, the accounting practices may be questioned. Indicate whether you agree or disagree with the accounting practice employed and state the assumptions, concepts, or principles that justify your position.

The salaries paid to the top officers of the company were charged to expense in the period in which they were incurred even though the officers spent over half of their time planning next year's activities.

No entry was made to record the belief that the market value of the land owned (carried in the accounts at USD 800,000) had increased.

The acquisition of a tract of land was recorded at the price paid for it of USD 400,000, even though the company would have been willing to pay USD 600,000.

A truck acquired at the beginning of the year was reported at year-end at 80 per cent of its acquisition price even though its market value then was only 65 per cent of its original acquisition price.

Alternate problem E Select the best answer to each of the following questions:

In the conceptual framework project, how many financial reporting objectives were identified by the FASB?

a. One.

b. Two.

c. Three.

d. Four.

The two primary qualitative characteristics are:

a. Predictive value and feedback value.

b. Timeliness and verifiability.

c. Comparability and neutrality.

d. Relevance and reliability.

A pervasive constraint of accounting information is that:

a. Benefits must exceed costs.

b. The information must be timely.

c. The information must be neutral.

d. The information must be verifiable.

To be reliable, information must (identify the incorrect quality):

a. Be verifiable.

b. Be timely.

c. Have representational faithfulness.

d. Be neutral.

The basic elements of financial statements consist of:

a. Terms and their definitions.

b. The objectives of financial reporting.

c. The qualitative characteristics.

d. The new income statement format.

6.16.8 Beyond the numbers—Critical thinking

Business decision case A Jim Casey recently received his accounting degree from State University and went to work for a Big-Four CPA firm. After he had been with the firm for about six months, he was sent to the Ling Clothing Company to work on the audit. He was not very confident of his knowledge at this early point in his career. He noticed, however, that some of the company's transactions and events were recorded in a way that might be in violation of accounting theory and generally accepted accounting principles.

Study each of the following facts to see if the auditors should challenge the financial accounting practices used or the intentions of management. Write your decisions and the reasoning behind your conclusions.

This problem can serve as an opportunity to apply accounting theory to situations with which you are not yet familiar and as a preview of future chapters. Some of the following situations relate to material you have already covered, and some situations relate to material to be covered in future chapters. After each item, we have given an indication of the chapter in which that item is discussed. You may research future chapters to find the correct answer. Alternatively, you could use your present knowledge of accounting theory to determine whether or not Casey should challenge each of the

financial accounting practices used. Realize, however, that some generally accepted accounting practices were based on compromise and seem to differ with accounting theory as described in this chapter.

One of the senior members of management stated the company planned to replace all of the furniture next year. He said that the cash in the Accumulated Depreciation account would be used to pay for the furniture. (Ch. 3)

The company held the books open at the end of 2010 so they could record some early 2011 sales as 2010 revenue. The justification for this practice was that 2010 was not a good year for profits. (Ch. 3, 5, 6)

The company's buildings were appraised for insurance purposes. The appraised values were USD 10,000,000 higher than the book value. The accountant debited Buildings and credited Paid-in Capital from Appreciation for the difference. (Ch. 5)

The company recorded purchases of merchandise at the list price rather than the gross selling (invoice) price. (Ch. 6)

Goods shipped to the company from a supplier, FOB destination, were debited to Purchases. The goods were not included in ending inventory because the goods had not yet arrived. (Ch. 5, 6)

The company counted some items twice in taking the physical inventory at the end of the year. The person taking the inventory said he had forgotten to include some items in last year's physical inventory, and counting some items twice would make up for the items missed last year so that net income this year would be about correct. (Ch. 7)

The company switched from FIFO to LIFO in accounting for inventories. The preceding year it had switched from the weighted-average method to FIFO. The reason given for the most recent change was that federal income taxes would be lower. No indication of this switch was to appear in the financial statements. (Ch. 5, 7)

Since things were pretty hectic at year-end, the accountant made no effort to reconcile the bank account. His reason was that the bank probably had not made any errors. The bank balance was lower than the book balance, so the accountant debited Miscellaneous Expense and credited Cash for the difference. (Ch. 8)

When a customer failed to pay the amount due, the accountant debited Allowance for Uncollectible Accounts and credited Accounts Receivable. The amount of accounts written off in this manner was huge. (Ch. 9)

A completely depreciated machine was still being used. The accountant left the asset and its related accumulated depreciation on the books, stopped recording depreciation on the machine, and did not go back and correct earlier years' net income and reduce accumulated depreciation. (Ch. 10)

The accountant stated that even though research and development costs incurred to develop a new product would benefit future periods, these costs must be expensed as incurred. This year USD 200,000 of these costs were charged to expense. (Ch. 11)

An old truck was traded for a new truck. Since the trade-in value of the old truck was higher than its book value, a gain was recorded on the transaction. (Ch. 11)

The company paid for a franchise giving it the exclusive right to operate in a given geographical area for 60 years. The accountant is amortizing the asset over 60 years. (Ch. 11)

The company leases a building and has a nonrenewable lease that expires in 15 years. The company made some improvements to the building. Since the improvements will last 30 years, they are being written off over 30 years. (Ch. 11)

Annual report analysis B Refer to the "Summary of significant accounting policies" in the annual report of The Limited, Inc. List the policies discussed. For each of the policies, explain in writing what the company is trying to communicate.

Ethics – A writing experience C Refer to the item "An ethical perspective: Maplehurst company". Write out the answers to the following questions:

Is management being ethical in this situation? Explain.

Is the accountant correct in believing that management's position could not be successfully defended? Explain.

What would you do if you were the accountant? Describe in detail.

Group project D In teams of two or three students, go to the library to locate one company's annual report for the most recent year. (As an alternative, annual reports can be downloaded from the SEC's EDGAR site at www.sec.gov/edgar.shtml) Examine the "Summary of accounting policies", which is part of the "Notes to financial statements" section immediately following the financial statements. As a team, write a memorandum to the instructor detailing the significant accounting policies of the company. The heading of the memorandum should contain the date, to whom it is written, from whom, and the subject matter.

Group project E With one or two other students and using library sources, write a paper on the history and achievements of the Financial Accounting Standards Board. This board is responsible for establishing the accounting standards and principles for financial accounting in the private sector. It was formed in 1973 and took over the rule setting function from the Accounting Principles Board of the

American Institute of Certified Public Accountants at that time. Be sure to cite sources used and to treat direct quotes properly.

Group project F Your team of students should obtain a copy of the report, "Improving Business Reporting—A Customer Focus" by the AICPA Special Committee on Financial Reporting (1994). Your library might have a copy. If not, it can be obtained from the AICPA [Product No. 019303, Order Department, AICPA, Harborside Financial Center, 201 Plaza Three, Jersey City, NJ 07311- 3881] [Toll free number 1-800-862-4272; FAX 1-800-362-5066]. Write a report giving a description of the recommendations of the committee. Be sure to cite sources used and treat direct quotes properly.

6.16.9 Using the Internet—A view of the real world

Visit the following Internet site for General Electric:

http://www.ge.com

Find the annual report listed under Financial Reporting, and then Notes to Financial Statements. Print a copy of the summary of Significant Accounting Policies. Write a short report to your instructor summarizing your findings.

Visit the following Internet site for Oracle.:

http://www.oracle.com

Click on "about", then under "Investor Relations" click on "Detailed Financials". Examine the notes on the financial statements for the latest quarter. Write a short report for your instructor on your findings.

6.16.10 Answers to self-test

True-false

False. The business entity concept assumes that each business has an existence separate from its owners, creditors, employees, customers, other interested parties, and other businesses.

True. Accountants should be guided by the economic substance of a transaction rather than its legal form.

True. The accrual basis of accounting seeks to match effort and accomplishment by matching expenses against the revenues they created.

False. Exceptions include the installment basis of revenue recognition for sales and the percentage-of- completion method for long-term construction projects.

False. Immaterial items do have to be recorded, but they can be recorded in a theoretically incorrect way (e.g. expensing a wastebasket that will last many years).

True. Relevance and reliability are the two primary characteristics.

Multiple-choice

c. The matching concept is one of the major principles of accounting rather than an assumption.

b. The consistency concept requires that a company use the same accounting principles and reporting practices through time.

b. Usually, the accountant does not recognize revenue until the seller acquires the right to receive payment from the buyer.

b. $\frac{\text{USD } 3,000,000}{\text{USD } 10,000,000} \text{ X USD } 15,000,000 = \text{USD } 4,500,000$.

a. Periodicity is an underlying assumption rather than a modifying convention.

b. The category, quantitative characteristics, is not part of the conceptual framework project. Merchandising transactions

7 Introduction to inventories and the classified income statement

7.1 Learning objective

After studying this chapter, you should be able to:

- Record journal entries for sales transactions involving merchandise.
- Describe briefly cost of goods sold and the distinction between perpetual and periodic inventory procedures.
- Record journal entries for purchase transactions involving merchandise.
- Describe the freight terms and record transportation costs.
- Determine cost of goods sold.
- Prepare a classified income statement.
- Analyze and use the financial results—gross margin percentage.
- Prepare a work sheet and closing entries for a merchandising company (Appendix).

7.2 A career as a CEO

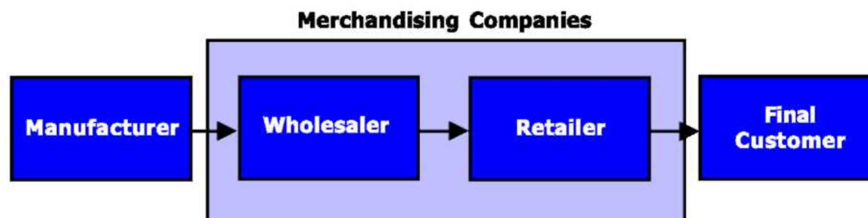
Are you a leader? Would you enjoy someday becoming the president or chief executive officer (CEO) of the company you work for? Then you should consider a degree in accounting. The accounting field greatly values individuals with leadership potential. Accounting students with the most job offers and the highest starting salaries are also likely to be the ones who best demonstrate an ability to lead others. Recruiters in public accounting (i.e. auditing, tax, consulting) and private accounting (i.e. financial reporting, cost accounting, financial analysis, internal auditing) alike demonstrate a strong preference for students with leadership potential.

Fortunately, you do not have to run a company to demonstrate leadership abilities to college recruiters. Some examples of leadership potential that would look good on a resume include organizing a successful fund-raiser, participating effectively as an officer in a student club, or taking the lead in a group project. If you do not have a resume yet, stop by the career placement center at your college and ask them to assist you in preparing one. Many students at your level already have a resume, and it takes time to refine and develop an effective one. A well-prepared resume will be important for securing internship opportunities and part-time work in the business field, as well as for landing that first job upon graduation.

Did you know that the chief executive officers (CEO) of many of the largest manufacturing, merchandising, and service organizations in the United States have degrees in accounting? James Dimon of JPMorgan Chase, Gary C. Kelly of Southwest Airlines, Phil Knight of Nike, James J. Mulva of ConocoPhillips, and Indra K. Nooyi of PepsiCo all have degrees in accounting. It is really not that surprising that accounting majors are so successful, as accounting provides an excellent foundation in business. With a strong accounting foundation and the continued development of leadership abilities over your career, you might become a CEO yourself someday.

Your study of accounting began with service companies as examples because they are the least complicated type of business. You are now ready to apply the accounting process to a more complex business—a merchandising company. Although the fundamental accounting concepts for service businesses apply to merchandising businesses, merchandise accounting requires some additional accounts and techniques to record sales and purchases.

The normal flow of goods from manufacturer to final customer is as follows:



Manufacturers produce goods from raw materials and normally sell them to wholesalers. After performing certain functions, such as packaging or labeling, **wholesalers** sell the goods to retailers. **Retailers** sell the goods to final customers. The two middle boxes in the diagram represent merchandising companies. These companies buy goods in finished form for resale.

This chapter begins by comparing the income statement of a service company with that of a merchandising company. Then, we describe (1) how to record merchandise-related transactions (2) a classified income statement and (3) the gross margin percentage. Finally, in the appendix we explain the work sheet and the closing process for a merchandising company.

SERVICE COMPANY		*MERCHANDISING COMPANY*	
Income Statement		*Income Statement*	
For the Year Ended 2010 December 31		*For the Year Ended 2010 December 31*	
Service revenues	$13,200	Sales revenues	$262,000
		Cost of goods sold	159,000
		Gross Margin	$103,000
Expenses	6,510	Expenses	74,900
Net income	$ 6,690	Net income	$ 28,100

Exhibit 32: Condensed income statements of a service company and a merchandising company compared

7.3 Two income statements compared— Service company and merchandising company

In Exhibit 32 we compare the main divisions of an income statement for a service company with those for a merchandising company. To determine profitability or net income, a service company deducts total expenses incurred from revenues earned. A merchandising company is a more complex business and, therefore, has a more complex income statement.

As shown in Exhibit 32, merchandising companies must deduct from revenues the cost of the goods they sell to customers to arrive at gross margin. Then, they deduct other expenses. The income statement of a merchandising company has three main divisions: (1) sales revenues, which result from the sale of goods by the company; (2) cost of goods sold, which is an expense that indicates how much the company paid for the goods sold; and (3) expenses, which are the company's other expenses in running the business.

In the next two sections we discuss the first two main divisions of the income statement of a merchandising company. The third division (expenses) is similar to expenses for a service company, which we illustrated in preceding chapters. As you study these sections, keep in mind how the divisions of the merchandising income statement are related to each other and produce the final figure—net income or net loss—which indicates the profitability of the company.

7.4 Sales revenues

The sale of goods occurs between two parties. The seller of the goods transfers them to the buyer in exchange for cash or a promise to pay at a later date. This exchange is a relatively simple business

transaction. Sellers make sales to create revenues; this inflow of assets in the form of cash or accounts receivable results from selling goods to customers.

In Exhibit 32, we show a condensed income statement to emphasize its major divisions. Next, we describe the more complete income statement actually prepared by accountants. The merchandising company that we use to illustrate the income statement is Hanlon Retail Food Store. This section explains how to record sales revenues, including the effect of trade discounts. Then, we explain how to record two deductions from sales revenues—sales discounts and sales returns and allowances (Exhibit 33). The amount that remains is **net sales**. The formula for determining net sales is:

Net sales = Gross sales - (Sales discounts + Sales returns and allowances)

HANLON RETAIL FOOD STORE

Partial income Statement

For the Year Ended 2010 December 31

Operating revenues:		
Gross sales		$282,000
Less: Sales discounts	$ 5,000	
Sales returns and allowances 15,000		20,000
Net sales		$262,000

Exhibit 33: Partial income statement of merchandising company

BRYAN WHOLESALE CO.
476 Mason Street
Detroit, Michigan 48823

Invoice No.: 1258 ***Date:*** *2010* Dec. 19,

Customer's Order No.: 218

Sold to: Baier Company

Address: 2255 Hannon Street

Big Rapids, Michigan 48106

Date Shipped: *2010* Dec. 19,

Terms: Net 30, FOB Destination

Shipped by: Nagel Trucking Co.

Description	Item Number	Quantity	Price per Unit	Total Amount
True-tone stereo radio	Model No. 5868-24393	200	$100	$20,000
		Total		$20,000

Exhibit 34: Invoice

In a sales transaction, the seller transfers the legal ownership (title) of the goods to the buyer. Usually, the physical delivery of the goods occurs at the same time as the sale of the goods. A business document called an invoice (a sales invoice for the seller and a purchase invoice for the buyer) becomes the basis for recording the sale.

An **invoice** is a document prepared by the seller of merchandise and sent to the buyer. The invoice contains the details of a sale, such as the number of units sold, unit price, total price billed, terms of sale, and manner of shipment. A retail company prepares the invoice at the point of sale. A wholesale company, which supplies goods to retailers, prepares the invoice after the shipping department notifies the accounting department that it has shipped the goods to the retailer. Exhibit 34 is an example of an invoice prepared by a wholesale company for goods sold to a retail company.

Using the invoice as the source document, a wholesale company records the revenue from the sale at the time of the sale for the following reasons:

- The seller has passed legal title of the goods to the buyer, and the goods are now the responsibility and property of the buyer.
- The seller has established the selling price of the goods.
- The seller has completed its obligation.
- The seller has exchanged the goods for another asset, such as cash or accounts receivable.
- The seller can determine the costs incurred in selling the goods.

Each time a company makes a sale, the company earns revenue. This revenue increases a revenue account called Sales. Recall from Chapter 2 that credits increase revenues. Therefore, the firm credits the Sales account for the amount of the sale.

Usually sales are for cash or on account. When a sale is for cash, the company credits the Sales account and debits Cash. For example, it records a USD 20,000 sale for cash as follows:

Cash (+A)	20,000	
Sales (+SE)		20,000
To record the sales of merchandise for cash.		

When a sale is on account, it credits the Sales account and debits Accounts Receivable. The following entry records a USD 20,000 sale on account:

Accounts Receivable (+A)	20,000	
Sales (+SE)		20,000
To record the sales of merchandise on account.		

Usually, a seller quotes the gross selling price, also called the invoice price, of goods to the buyer. However, sometimes a seller quotes a list price of goods along with available trade discounts. In this latter situation, the buyer must calculate the gross selling price. The list price less all trade discounts is the **gross selling price**. Merchandising companies that sell goods use the gross selling price as the credit to sales.

An accounting perspective: Uses of technology

A database management system stores related data—such as monthly sales data (salespersons, customers, products, and sales amounts)—independent of the application. Once you have defined this information to the database management system, you can use commands to answer such questions as: Which products have been sold to which customers? What are the amounts of sales by individual salespersons? You could also print a customer list sorted by ZIP code, the alphabet, or salesperson.

A **trade discount** is a percentage deduction, or discount, from the specified list price or catalog price of merchandise. Companies use trade discounts to:

- Reduce the cost of catalog publication. A seller can use a catalog for a longer time by printing list prices in the catalog and giving separate discount sheets to salespersons whenever prices change.
- Grant quantity discounts.
- Allow quotation of different prices to various customers, such as retailers and wholesalers.

The seller's invoice may show trade discounts. However, sellers do not record trade discounts in their accounting records because the discounts are used only to calculate the gross selling price. Nor do trade discounts appear on the books of the purchaser. To illustrate, assume an invoice contains the following data:

List price, 200 swimsuits at $24	$4,800
Less: Trade discount, 30%	1,440
Gross selling price (invoice price)	$3,360

The seller records a sale of USD 3,360. The purchaser records a purchase of USD 3,360. Thus, neither the seller nor the purchaser enters list prices and trade discounts on their books.

Sometimes the list price of a product is subject to several trade discounts; this series of discounts is a **chain discount**. Chain discounts exist, for example, when a wholesaler receives two trade discounts for services performed, such as packaging and distributing. When more than one discount is given, the buyer applies each discount to the declining balance successively. If a product has a list price of USD 100 and is subject to trade discounts of 20 per cent and 10 per cent, the gross selling price (invoice price) would be USD 100 - 0.2(USD 100) = USD 80; USD 80 - 0.1(USD 80) = USD 72, computed as follows:

List price	$100

Less 20%	-	20
	$	80
Less 10%		■
		8
Gross selling price (invoice price)	$	72

You could obtain the same results by multiplying the list price by the complements of the trade discounts allowed. The complement of 20 per cent is 80 per cent because 20 per cent + 80 per cent = 100 per cent. The complement of 10 per cent is 90 per cent because 10 per cent + 90 per cent = 100 per cent. Thus, the gross selling price is USD 100 X 0.8 X 0.9 = USD 72.

Two common deductions from gross sales are (1) sales discounts and (2) sales returns and allowances. Sellers record these deductions in contra revenue accounts to the Sales account. Contra accounts have normal balances that are opposite to the balance of the account they reduce. For example, since the Sales account normally has a credit balance, the Sales Discounts account and Sales Returns and Allowances account have debit balances. We explain the methods of recording these contra revenue accounts next.

Sales discounts Whenever a company sells goods on account, it clearly specifies terms of payment on the invoice. For example, the invoice in Exhibit 34 states the terms of payment as "net 30".

Net 30 is sometimes written as "n/30". Either way, this term means that the buyer may not take a discount and must pay the entire amount of the invoice (USD 20,000) on or before 30 days after 2010 December 19 (invoice date)—or 2011 January 18. In Exhibit 34, if the terms had read "n/10/EOM" (EOM means end of month), the buyer could not take a discount, and the invoice would be due on the 10th day of the month following the month of sale—or 2011 January 10. Credit terms vary from industry to industry.

In some industries, credit terms include a cash discount of 1 per cent to 3 per cent to induce early payment of an amount due. A **cash discount** is a deduction from the invoice price that can be taken only if the invoice is paid within a specified time. A cash discount differs from a trade discount in that a cash discount is a deduction from the gross selling price for the prompt payment of an invoice. In contrast, a trade discount is a deduction from the list price to determine the gross selling price (or invoice price). Sellers call a cash discount a **sales discount** and buyers call it a **purchase discount**. Companies often state cash discount terms as follows:

- **2/10, n/30**—means a buyer who pays within 10 days following the invoice date may deduct a discount of 2 per cent of the invoice price. If payment is not made within the discount period, the entire invoice price is due 30 days from the invoice date.

- **2/EOM, n/60**—means a buyer who pays by the end of the month of purchase may deduct a 2 per cent discount from the invoice price. If payment is not made within the discount period, the entire invoice price is due 60 days from the invoice date.
- **2/10/EOM, n/60**—means a buyer who pays by the 10th of the month following the month of purchase may deduct a 2 per cent discount from the invoice price. If payment is not made within the discount period, the entire invoice price is due 60 days from the invoice date.

Sellers cannot record the sales discount before they receive the payment since they do not know when the buyer will pay the invoice. A cash discount taken by the buyer reduces the cash that the seller actually collects from the sale of the goods, so the seller must indicate this fact in its accounting records. The following entries show how to record a sale and a subsequent sales discount.

Assume that on July 12, a business sold merchandise for USD 2,000 on account; terms are 2/10, n/30. On July 21 (nine days after invoice date), the business received a USD 1,960 check in payment of the account. The required journal entries for the seller are:

July	12	Accounts Receivable (+A)	2,000	
		Sales (+SE)		2,000
		To record sale on account; terms 2/10, n/30		
	21	Cash (+A)	1,960	
		Sales Discounts (-SE; Contra-Revenue Account)	40	
		Accounts Receivable (-A)		2,000
		To record collection on account, less a discount.		

The **Sales Discounts account** is a contra revenue account to the Sales account. In the income statement, the seller deducts this contra revenue account from gross sales. Sellers use the Sales Discounts account (rather than directly reducing the Sales account) so management can examine the sales discounts figure to evaluate the company's sales discount policy. Note that the Sales Discounts account is not an expense incurred in generating revenue. Rather, the purpose of the account is to reduce recorded revenue to the amount actually realized from the sale.

Sales returns and allowances Merchandising companies usually allow customers to return goods that are defective or unsatisfactory for a variety of reasons, such as wrong color, wrong size, wrong style, wrong amounts, or inferior quality. In fact, when their policy is satisfaction guaranteed, some companies allow customers to return goods simply because they do not like the merchandise. A **sales return** is merchandise returned by a buyer. Sellers and buyers regard a sales return as a cancellation of a sale. Alternatively, some customers keep unsatisfactory goods, and the seller gives

them an allowance off the original price. A **sales allowance** is a deduction from the original invoiced sales price granted when the customer keeps the merchandise but is dissatisfied for any of a number of reasons, including inferior quality, damage, or deterioration in transit. When a seller agrees to the sales return or sales allowance, the seller sends the buyer a credit memorandum indicating a reduction (crediting) of the buyer's account receivable. A credit memorandum is a document that provides space for the name and address of the concerned parties, followed by a space for the reason for the credit and the amount to be credited. A credit memorandum becomes the basis for recording a sales return or a sales allowance.

In theory, sellers could record both sales returns and sales allowances as debits to the Sales account because they cancel part of the recorded selling price.

However, because the amount of sales returns and sales allowances is useful information to management, it should be shown separately. The amount of returns and allowances in relation to goods sold can indicate the quality of the goods (high-return percentage, equals low quality) or of pressure applied by salespersons (high-return percentage, equals high-pressure sales). Thus, sellers record sales returns and sales allowances in a separate Sales Returns and Allowances account. The **Sales Returns and Allowances account** is a contra revenue account (to Sales) that records the selling price of merchandise returned by buyers or reductions in selling prices granted. (Some companies use separate accounts for sales returns and for sales allowances, but this text does not.)

Following are two examples illustrating the recording of sales returns in the Sales Returns and Allowances account:

- Assume that a customer returns USD 300 of goods sold on account. If payment has not yet been received, the required entry is:
-

Sales Returns and Allowances (-SE)	300	
Accounts Receivable (-A)		300
To record a sales return from a customer.		

- Assume that the customer has already paid the account and the seller gives the customer a cash refund. Now, the credit is to Cash rather than to Accounts Receivable. If the customer has taken a 2 per cent discount when paying the account, the company would return to the customer the sales price less the sales discount amount. For example, if a customer returns goods that sold for USD 300, on which a 2 per cent discount was taken, the following entry would be made:

Sales Returns and Allowances (-SE)	300	
Cash (-A)		294
Sales Discount (+SE)		6
To record a sales return from a customer who had taken a discount and was sent a cash refund.		

The debit to the Sales Returns and Allowances account is for the full selling price of the purchase. The credit of USD 6 reduces the balance of the Sales Discounts account.

Next, we illustrate the recording of a sales allowance in the Sales Returns and Allowances account. Assume that a company grants a USD 400 allowance to a customer for damage resulting from improperly packed merchandise. If the customer has not yet paid the account, the required entry would be:

Sales Returns and Allowances (-SE)	400	
Accounts Receivable (-A)		400
To record a sales allowance granted for damaged merchandise.		

If the customer has already paid the account, the credit is to Cash instead of Accounts Receivable. If the customer took a 2 per cent discount when paying the account, the company would refund only the net amount (USD 392). Sales Discounts would be credited for USD 8. The entry would be:

Sales Returns and Allowances (-SE)	400	
Cash (-A)		392
Sales Discount (+SE)		8
To record a sales allowance when a customer has paid and taken a 2% discount.		

HANLON RETAIL FOOD STORE

Partial income Statement

For the Year Ended 2010 December 31,

Operating revenues:		
Gross sales		$282,000
Less: Sales discounts	$ 5,000	
Sales returns and allowances 15,000		20,000
Net sales		$262,000

*This illustration is the same as Exhibit 33, repeated here for your convenience.

Exhibit 35: Partial income statement*

Exhibit 35 shows how a company could report sales, sales discounts, and sales returns and allowances in the income statement. More often, the income statement in a company's annual report begins with "Net sales" because sales details are not important to external financial statement users.

An accounting perspective: Business insight

When examining a company's sales cycle, management and users of financial data should be aware of any seasonal changes that may affect its reported sales. A national retailer of personal computers and related products and services, for example, should include wording similar to that in the following paragraph in its Annual Report describing seasonality.

Seasonality

Based upon its operating history, the company believes that its business is seasonal. Excluding the effects of new store openings, net sales and earnings are generally lower during the first and fourth fiscal quarters than in the second and third fiscal quarters.

An accounting perspective: Business insight

For many retailers a large percentage of their annual sales occurs during the period from Thanksgiving to Christmas. They attempt to stock just the right amount of goods to meet demand. Since this is a difficult estimate to make accurately, many retailers end up with a large amount of unsold goods at the end of this season. The only way they can unload these goods is to offer huge discounts during the following period.

7.5 Cost of goods sold

The second main division of an income statement for a merchandising business is cost of goods sold. **Cost of goods sold** is the cost to the seller of the goods sold to customers. For a merchandising company, the cost of goods sold can be relatively large. All merchandising companies have a quantity of goods on hand called merchandise inventory to sell to customers. **Merchandise inventory** (or inventory) is the quantity of goods available for sale at any given time. Cost of goods sold is determined by computing the cost of (1) the beginning inventory, (2) the net cost of goods purchased, and (3) the ending inventory.

Look at the cost of goods sold section of Hanlon Retail Food Store's income statement in Exhibit 36. The merchandise inventory on 2010 January 1, was USD 24,000. The net cost of purchases for the year

was USD 166,000. Thus, Hanlon had USD 190,000 of merchandise available for sale during 2010. On 2010 December 31, the merchandise inventory was USD 31,000, meaning that this amount was left unsold. Subtracting the unsold inventory (the ending inventory), USD 31,000, from the amount Hanlon had available for sale during the year, USD 190,000, gives the cost of goods sold for the year of USD 159,000. Understanding this relationship shown on Hanlon Retail Food Store's partial income statement gives you the necessary background to determine the cost of goods sold as presented in this section.

Cost of goods sold:			
Merchandise inventory, 2010 January 1			$ 24,000
Purchases		$167,000	
Less: Purchase discounts	$3,000		
Purchase returns and allowances	8,000	11,000	
Net Purchases		$156,000	
Add: Transportation-in		10,000	
Net cost of purchases			166,000
Cost of goods available for sale			$190,000
Less: Merchandise inventory, 2010 December 31			31,000
Cost of goods sold			$159,000

Exhibit 36: Determination of cost of goods sold for Hanlon Retail Food Store

To determine the cost of goods sold, accountants must have accurate merchandise inventory figures. Accountants use two basic methods for determining the amount of merchandise inventory—perpetual inventory procedure and periodic inventory procedure. We mention perpetual inventory procedure only briefly here. In the next chapter, we emphasize perpetual inventory procedure and further compare it with periodic inventory procedure.

When discussing inventory, we need to clarify whether we are referring to the physical goods on hand or the Merchandise Inventory account, which is the financial representation of the physical goods on hand. The difference between perpetual and periodic inventory procedures is the frequency with which the Merchandise Inventory account is updated to reflect what is physically on hand. Under **perpetual inventory procedure**, the Merchandise Inventory account is continuously updated to reflect items on hand. For example, your supermarket uses a scanner to ring up your purchases. When your box of Rice Krispies crosses the scanner, the Merchandise Inventory account shows that one less box of Rice Krispies is on hand.

Under **periodic inventory procedure**, the Merchandise Inventory account is updated periodically after a physical count has been made. Usually, the physical count takes place immediately before the preparation of financial statements.

Perpetual inventory procedure Companies use perpetual inventory procedure in a variety of business settings. Historically, companies that sold merchandise with a high individual unit value, such as automobiles, furniture, and appliances, used perpetual inventory procedure. Today, computerized cash registers, scanners, and accounting software programs automatically keep track of inflows and outflows of each inventory item. Computerization makes it economical for many retail stores to use perpetual inventory procedure even for goods of low unit value, such as groceries.

Under perpetual inventory procedure, the Merchandise Inventory account provides close control by showing the cost of the goods that are supposed to be on hand at any particular time. Companies debit the Merchandise Inventory account for each purchase and credit it for each sale so that the current balance is shown in the account at all times. Usually, firms also maintain detailed unit records showing the quantities of each type of goods that should be on hand. Company personnel also take a physical inventory by actually counting the units of inventory on hand. Then they compare this physical count with the records showing the units that should be on hand. Chapter 7 describes perpetual inventory procedure in more detail.

Periodic inventory procedure Merchandising companies selling low unit value merchandise (such as nuts and bolts, nails, Christmas cards, or pencils) that have not computerized their inventory systems often find that the extra costs of record-keeping under perpetual inventory procedure more than outweigh the benefits. These merchandising companies often use periodic inventory procedure.

Under periodic inventory procedure, companies do not use the Merchandise Inventory account to record each purchase and sale of merchandise. Instead, a company corrects the balance in the Merchandise Inventory account as the result of a physical inventory count at the end of the accounting period. Also, the company usually does not maintain other records showing the exact number of units that should be on hand. Although periodic inventory procedure reduces record-keeping, it also reduces control over inventory items.

Companies using periodic inventory procedure make no entries to the Merchandise Inventory account nor do they maintain unit records during the accounting period. Thus, these companies have no up-to-date balance against which to compare the physical inventory count at the end of the period. Also, these companies make no attempt to determine the cost of goods sold at the time of each sale. Instead, they calculate the cost of all the goods sold during the accounting period at the end of the period. To determine the cost of goods sold, a company must know:

- Beginning inventory (cost of goods on hand at the beginning of the period).
- Net cost of purchases during the period.
- Ending inventory (cost of unsold goods at the end of the period).

The company would show this information as follows:

Beginning inventory	$ 34,000
Add: Net cost of purchases during the period	140,000
Cost of goods available for sale during the period	$174,000
Deduct: Ending inventory	20,000
Cost of goods sold during the period	$154,000

In this schedule, notice that the company began the accounting period with USD 34,000 of merchandise and purchased an additional USD 140,000, making a total of USD 174,000 of goods that could have been sold during the period. Then, a physical inventory showed that USD 20,000 remained unsold, which implies that USD 154,000 was the cost of goods sold during the period. Of course, the USD 154,000 is not necessarily the precise amount of goods sold because no actual record was made of the dollar cost of the goods sold. Periodic inventory procedure basically assumes that everything not on hand at the end of the period has been sold. This method disregards problems such as theft or breakage because the Merchandise Inventory account contains no up-to-date balance at the end of the accounting period against which to compare the physical count.

Under periodic inventory procedure, a merchandising company uses the **Purchases account** to record the cost of merchandise bought for resale during the current accounting period. The Purchases account, which is increased by debits, appears with the income statement accounts in the chart of accounts.

To illustrate entries affecting the Purchases account, assume that Hanlon Retail Food Store made two purchases of merchandise from Smith Wholesale Company. Hanlon purchased USD 30,000 of merchandise on credit (on account) on May 4, and on May 21 purchased USD 20,000 of merchandise for cash. The required journal entries for Hanlon are:

May	4	Purchases (+A)	30,000	
		Accounts Payable (+L)		30,000
		To record purchases of merchandise on account.		
	21	Purchases (+A)	20,000	
		Cash (-A)		20,000
		To record purchase of merchandise for cash.		

The buyer deducts purchase discounts and purchase returns and allowances from purchases to arrive at net purchases. The accountant records these items in contra accounts to the Purchases account.

Purchase discounts Often companies purchase merchandise under credit terms that permit them to deduct a stated cash discount if they pay invoices within a specified time. Assume that credit terms for Hanlon's May 4 purchase are 2/10, n/30. If Hanlon pays for the merchandise by May 14, the store may take a 2 per cent discount. Thus, Hanlon must pay only USD 29,400 to settle the USD 30,000 account payable. The entry to record the payment of the invoice on May 14 is:

May	14	Accounts Payable (-L)	30,000	
		Cash (-A)		29,400
		Purchase Discount (+SE)		600
		To record payment on account within the discount period.		

The buyer records the purchase discount only when the invoice is paid within the discount period and the discount is taken. The **Purchase Discounts account** is a contra account to Purchases that reduces the recorded invoice price of the goods purchased to the price actually paid. Hanlon reports purchase discounts in the income statement as a deduction from purchases.

Companies base purchase discounts on the invoice price of goods. If an invoice shows purchase returns or allowances, they must be deducted from the invoice price before calculating purchase discounts. For example, in the previous transaction, the invoice price of goods purchased was USD 30,000. If Hanlon returned USD 2,000 of the goods, the seller calculates the 2 per cent purchase discount on USD 28,000.

Interest rate implied in cash discounts To decide whether you should take advantage of discounts by using your cash or borrowing, make this simple analysis. Assume that you must pay USD 10,000 within 30 days or USD 9,800 within 10 days to settle a USD 10,000 invoice with terms of 2/10, n/30. By advancing payment 20 days from the final due date, you can secure a discount of USD 200. The interest expense incurred to borrow USD 9,800 at 12 per cent per year for 20 days is USD 65.33, calculated as (USD 9,800 x .12 x 20/360). You would save USD 134.67 (USD 200 - USD 65.33) by borrowing the money and paying the invoice within the discount period.

In terms of an annual rate of interest, the 2 per cent rate of discount for 20 days is equivalent to a 36 per cent annual rate: (360/20) X 2 per cent. The formula is:

$$\text{Equivalent annual rate of interest} = \frac{\text{The number of days in a year (assumed to be 360)}}{\text{The number of days from the end of the discount period until the final due date}} \times \text{The percentage rate of discount}$$

You can convert all cash discount terms to their approximate annual interest rate equivalents by use of this formula. Thus, a company could afford to pay up to 36 per cent [(360/20) X 2 per cent] on borrowed funds to take advantage of discount terms of 2/10, n/ 30. The company could pay 18 per cent on terms of 1/10, n/30.

Purchase returns and allowances A purchase return occurs when a buyer returns merchandise to a seller. When a buyer receives a reduction in the price of goods shipped, a purchase allowance results. Then, the buyer commonly uses a debit memorandum to notify the seller that the account payable with the seller is being reduced (Accounts Payable is debited). The buyer may use a copy of a debit memorandum to record the returns or allowances or may wait for confirmation, usually a credit memorandum, from the seller.

Both returns and allowances reduce the buyer's debt to the seller and decrease the cost of the goods purchased. The buyer may want to know the amount of returns and allowances as the first step in controlling the costs incurred in returning unsatisfactory merchandise or negotiating purchase allowances. For this reason, buyers record purchase returns and allowances in a separate **Purchase Returns and Allowances account**. If Hanlon returned USD 350 of merchandise to Smith Wholesale before paying for the goods, it would make this journal entry:

Accounts Payable (-L)	350	
Purchase Returns and Allowances (+SE)		350
To record return of damaged merchandise to supplier		

The entry would have been the same to record a USD 350 allowance. Only the explanation would change.

If Hanlon had already paid the account, the debit would be to Cash instead of Accounts Payable, since Hanlon would receive a refund of cash. If the company took a discount at the time it paid the account, only the net amount would be refunded. For instance, if a 2 per cent discount had been taken, Hanlon's journal entry for the return would be:

Cash (+A)	343	
Purchase Discounts (-SE)	7	
Purchase Returns and Allowances (+SE)		350
To record return of damaged merchandise to supplier and record receipt of cash.		

Purchase returns and allowances is a contra account to the Purchases account, and the income statement shows it as a deduction from purchases. When both purchase discounts and purchase returns and allowances are deducted from purchases, the result is **net purchases**.

Transportation costs are an important part of cost of goods sold. To understand how to account for transportation costs, you must know the meaning of the following terms:

- **FOB shipping point** means "free on board at shipping point". The buyer incurs all transportation costs after the merchandise has been loaded on a railroad car or truck at the point of shipment. Thus, the buyer is responsible for ultimately paying the freight charges.
- **FOB destination** means "free on board at destination". The seller ships the goods to their destination without charge to the buyer. Thus, the seller is ultimately responsible for paying the freight charges.
- **Passage of title** is a term that indicates the transfer of the legal ownership of goods. Title to the goods normally passes from seller to buyer at the FOB point. Thus, when goods are shipped FOB shipping point, title usually passes to the buyer at the shipping point. When goods are shipped FOB destination, title usually passes at the destination.
- **Freight prepaid** means the seller must initially pay the freight at the time of shipment.
- **Freight collect** indicates the buyer must initially pay the freight bill on the arrival of the goods.

To illustrate the use of these terms, assume that a company ships goods FOB shipping point, freight collect. Title passes at the shipping point. The buyer is responsible for paying the USD 100 freight costs and does so. The seller makes no entry for freight charges; the entry on the buyer's books is:

Transportation-In (or Freight-In) (+SE)	100	
Cash (-A)		100
To record payment of freight bill on goods purchased.		

The **Transportation-In account** records the inward freight costs of acquiring merchandise. Transportation-In is an adjunct account in that it is added to net purchases to arrive at **net cost of**

purchases. An **adjunct account** is closely related to another account (Purchases, in this instance), and its balance is added to the balance of the related account in the financial statements. Recall that a contra account is just the opposite of an adjunct account. Buyers deduct a contra account, such as accumulated depreciation, from the related fixed asset account in the financial statements.

When shipping goods FOB destination, freight prepaid, the seller is responsible for and pays the freight bill. Because the seller cannot bill a separate freight cost to the buyer, the buyer shows no entry for freight on its books. The seller, however, has undoubtedly considered the freight cost in setting selling prices. The following entry is required on the seller's books:

Delivery Expense (or Transportation-Out Expense) (-SE)	100	
Cash (-A)		100
To record freight cost on goods sold.		

When the terms are FOB destination, the seller records the freight costs as **delivery expense**; this selling expense appears on the income statement with other selling expenses.

FOB terms are especially important at the end of an accounting period. Goods in transit then belong to either the seller or the buyer, and one of these parties must include these goods in its ending inventory. Goods shipped FOB destination belong to the seller while in transit, and the seller includes these goods in its ending inventory. Goods shipped FOB shipping point belong to the buyer while in transit, and the buyer records these goods as a purchase and includes them in its ending inventory. For example, assume that a seller ships goods on 2009 December 30, and they arrive at their destination on 2010 January 5. If terms are FOB destination, the seller includes the goods in its 2009 December 31, inventory, and neither seller nor buyer records the exchange transaction until 2010 January 5. If terms are FOB shipping point, the buyer includes the goods in its 2009 December 31, inventory, and both parties record the exchange transaction as of 2009 December 30.

Sometimes the seller prepays the freight as a convenience to the buyer, even though the buyer is ultimately responsible for it. The buyer merely reimburses the seller for the freight paid. For example, assume that Wood Company sold merchandise to Loud Company with terms of FOB shipping point, freight prepaid. The freight charges were USD 100. The following entries are necessary on the books of the buyer and the seller:

Buyer—Loud Company			***Seller—Wood Company***		
Transportation-In (-SE)	100		Accounts Receivable (+A)	100	
Accounts Payable (+L)		100	Cash (-A)		100

Such entries are necessary because Wood initially paid the freight charges when not required to do so. Therefore, Loud Company must reimburse Wood for the charges. If the buyer pays freight for the seller (e.g. FOB destination, freight collect), the buyer merely deducts the freight paid from the amount owed to the seller. The following entries are necessary on the books of the buyer and the seller:

Buyer—Loud Company			***Seller—Wood Company***		
Accounts Payable (-L)	100		Delivery Expense (-SE)	100	
Cash (-A)		100	Accounts Receivable (-A)		100

Purchase discounts may be taken only on the purchase price of goods. Therefore, a buyer who owes the seller for freight charges cannot take a discount on the freight charges owed, even if the buyer makes payment within the discount period. We summarize our discussion of freight terms and the resulting journal entries to record the freight charges in Exhibit 37.

Merchandise inventory is the cost of goods on hand and available for sale at any given time. To determine the cost of goods sold in any accounting period, management needs inventory information. Management must know its cost of goods on hand at the start of the period (beginning inventory), the net cost of purchases during the period, and the cost of goods on hand at the close of the period (ending inventory). Since the ending inventory of the preceding period is the beginning inventory for the current period, management already knows the cost of the beginning inventory. Companies record purchases, purchase discounts, purchase returns and allowances, and transportation-in throughout the period. Therefore, management needs to determine only the cost of the ending inventory at the end of the period in order to calculate cost of goods sold.

Taking a physical inventory Under periodic inventory procedure, company personnel determine ending inventory cost by taking a **physical inventory**. Taking a physical inventory consists of counting physical units of each type of merchandise on hand. To calculate inventory cost, they multiply the number of each kind of merchandise by its unit cost. Then, they combine the total costs of the various kinds of merchandise to provide the total ending inventory cost.

In taking a physical inventory, company personnel must be careful to count all goods owned, regardless of where they are located, and include them in the inventory.

Shipping point: Detroit- ***Goods travel from shipping point to destination*** ***If shipping terms are:***	Destination: San Diego
FOB shipping point—Buyer incurs the freight	FOB destination—Seller incurs the freight

charges	charge
Freight prepaid—Seller initially pays the freight charges	Freight collect—Buyer initially pays the freight charges

If the freight terms are combined as follows:

Terms	*Party that Initially Pays*	*Party that Ultimately Bears Expense*
(1) FOB shipping point, freight collect	Buyer	Buyer
(2) FOB destination, freight prepaid	Seller	Seller
(3) FOB shipping point, freight prepaid	Seller	Buyer
(4) FOB destination, freight collect	Buyer	Seller

Exhibit 37: Summary of shipping terms

Explanations:

FOB shipping point, freight collect – Buyer both incurs and initially pays the freight chargers. The proper party (buyer) paid the freight. The buyer debits Transportation-In and credits Cash.

FOB destination, freight prepaid – Seller both incurs and initially pays the freight charges. The proper party (seller) paid the freight. The seller debits Delivery Expense and credits Cash.

FOB shipping point, freight prepaid – Buyer incurs the freight chargers, and seller initially pays the freight charges. Buyer must reimburse seller for freight charges. The seller debits Accounts Receivable and credits Cash upon paying the freight. The buyer debits Transportation-In and credits Accounts Payable when informed of the freight charges.

FOB destination, freight collect – Seller incurs freight charges, and buyer initially pays freight charges. Buyer deducts freight charges from amount owed to seller. The buyer debits Accounts Payable and credits Cash when paying the freight. The seller debits Delivery Expense and credits Accounts Receivable when informed of the freight charges.

Thus, companies should include goods shipped to potential customers on approval in their inventories. Similarly, companies should not record **consigned goods** (goods delivered to another party who attempts to sell them for a commission) as sold goods. These goods remain the property of the owner (consignor) until sold by the consignee and must be included in the owner's inventory.

Merchandise in transit is merchandise in the hands of a freight company on the date of a physical inventory. As stated above, buyers must record merchandise in transit at the end of the accounting period as a purchase if the goods were shipped FOB shipping point and they have received title to the merchandise. In general, the goods belong to the party who ultimately bears the transportation charges.

When accounting personnel know the beginning and ending inventories and the various items making up the net cost of purchases, they can determine the cost of goods sold. To illustrate, assume the following account balances for Hanlon Retail Food Store as of 2010 December 31:

Merchandise Inventory, 2010 January 1	$ 24,000	Dr.
Purchases	167,000	Dr.
Purchase Discounts	3,000	Cr.
Purchase Returns and Allowances	8,000	Cr.
Transportation-In	10,000	Dr.

By taking a physical inventory, Hanlon determined the 2010 December 31, merchandise inventory to be USD 31,000. Hanlon then calculated its cost of goods sold as shown in Exhibit 38. This computation appears in a section of the income statement directly below the calculation of net sales.

Cost of goods sold:			
Merchandise inventory, 2010 January 1			$ 24,000
Purchases		$167,000	
Less: Purchase discounts	$3,000		
Purchase returns and allowances	8,000	11,000	
Net Purchases		$156,000	
Add: Transportation-in		10,000	
Net cost of purchases			166,000
Cost of goods available for sale			$190,000
Less: Merchandise inventory, 2010 December 31			31,000
Cost of goods sold			$159,000

This illustration is the same as Exhibit 36, repeated here for your convenience.

Exhibit 38: Determination of cost of goods sold for Hanlon Retain Food Store*

In Exhibit 38, Hanlon's beginning inventory (USD 24,000) plus net cost of purchases (USD 166,000) is equal to **cost of goods available for sale** (USD 190,000). The firm deducts the ending inventory cost (USD 31,000) from cost of goods available for sale to arrive at cost of goods sold (USD 159,000).

Another way of looking at this relationship is the following diagram:

Beginning inventory and net cost of purchases combine to form cost of goods available for sale. Hanlon divides the cost of goods available for sale into ending inventory (which is the cost of goods not sold) and cost of goods sold.

To continue the calculation appearing in Exhibit 38, net cost of purchases (USD 166,000) is equal to purchases (USD 167,000), less purchase discounts (USD 3,000) and purchase returns and allowances (USD 8,000), plus transportation-in (USD 10,000).

As shown in Exhibit 38, ending inventory cost (merchandise inventory) appears in the income statement as a deduction from cost of goods available for sale to compute cost of goods sold. Ending inventory cost (merchandise inventory) is also a current asset in the end-of-period balance sheet.

Companies use periodic inventory procedure because of its simplicity and relatively low cost. However, periodic inventory procedure provides little control over inventory. Firms assume any items not included in the physical count of inventory at the end of the period have been sold. Thus, they mistakenly assume items that have been stolen have been sold and include their cost in cost of goods sold.

To illustrate, suppose that the cost of goods available for sale was USD 200,000 and ending inventory was USD 60,000. These figures suggest that the cost of goods sold was USD 140,000. Now suppose that USD 2,000 of goods were actually shoplifted during the year. If such goods had not been stolen, the ending inventory would have been USD 62,000 and the cost of goods sold only USD 138,000. Thus, the USD 140,000 cost of goods sold calculated under periodic inventory procedure includes both the cost of the merchandise delivered to customers and the cost of merchandise stolen.

An accounting perspective: Uses of technology

Many companies are building private networks to link their employees, customers, and suppliers together. These networks within the Internet are referred to as companies' intranets. The Internet can be likened to the entire universe, while an intranet can be likened to a solar system within the universe. A company's intranet is built to be secure from outside users. For instance, these networks are designed to be secure against "hackers" and other unauthorized persons. The intranet software typically encrypts data sent over the Internet to safeguard financial transactions.

7.6 Classified income statement

In preceding chapters, we illustrated the unclassified (or single-step) income statement. An **unclassified income statement** has only two categories—revenues and expenses. In contrast, a **classified income statement** divides both revenues and expenses into operating and nonoperating items. The statement also separates operating expenses into selling and administrative expenses. A classified income statement is also called a multiple-step income statement.

In Exhibit 39, we present a classified income statement for Hanlon Retail Food Store. This statement uses the previously presented data on sales (Exhibit 35) and cost of goods sold (Exhibit 38),

together with additional assumed data on operating expenses and other expenses and revenues. Note in Exhibit 39 that a classified income statement has the following four major sections:

- Operating revenues.
- Cost of goods sold.
- Operating expenses.
- Nonoperating revenues and expenses (other revenues and other expenses).

The classified income statement shows important relationships that help in analyzing how well the company is performing. For example, by deducting cost of goods sold from operating revenues, you can determine by what amount sales revenues exceed the cost of items being sold. If this margin, called gross margin, is lower than desired, a company may need to increase its selling prices and/or decrease its cost of goods sold. The classified income statement subdivides operating expenses into selling and administrative expenses. Thus, statement users can see how much expense is incurred in selling the product and how much in administering the business. Statement users can also make comparisons with other years' data for the same business and with other businesses. Nonoperating revenues and expenses appear at the bottom of the income statement because they are less significant in assessing the profitability of the business.

An accounting perspective: Business insight

Management chooses whether to use a classified or unclassified income statement to present a company's financial data. This choice may be based either on how their competitors present their data or on the costs associated with assembling the data.

HANLON RETAIL FOOD STORE

Income Statement

For the Year Ended 2010 December 31

Operating revenues:				
Gross sales				$282,000
Less: Sales discounts			$ 5,000	
Sales return and allowances			15,000	20,000
Net sales				$262,000
Cost of goods sold:				
Merchandise inventory, 2010 January 1			$24,000	
Purchases		$167,000		
Less: Purchase discount	$3,000			
Purchase returns and allowances	8,000	11,000		
Net purchases		$156,000		

Add: Transportation-in	10,000		
Net cost of purchases		166,000	
Cost of goods available for sale		$190,000	
Less: Merchandise inventory, 2010 December 31		31,000	
Cost of goods sold			159,000
Gross Margin			$103,000
Operating expenses:			
Selling expenses:			
Salaries and commissions expense	$ 26,000		
Salespersons' travel expense	3,000		
Delivery expense	2,000		
Advertising expense	4,000		
Rent expense—store building	2,500		
Supplies expense	1,000		
Utilities expense	1,800		
Depreciation expense—store equipment	700		
Other selling expense	400	$41,400	
Administrative expenses:			
Salaries expense, executive	$29,000		
Rent expense—administrative building	1,600		
Insurance expense	1,500		
Supplies expense	800		
Depreciation expense—office equipment	1,100		
Other administrative expenses	300	34,300	
Total operating expenses			75,700
Income from operations			$ 27,300
Nonoperating revenues and expenses:			
Nonoperating revenues:			
Interest revenue			1,400 $ 28,700
Nonoperating expenses:			
Interest expense			600
Net income			$ 28,100

Exhibit 39: Classified income statement for a merchandising company

Next, we explain the major headings of the classified income statement in Exhibit 39. The terms in some of these headings are already familiar to you. Although future illustrations of classified income statements may vary somewhat in form, we retain the basic organization.

- **Operating revenues** are the revenues generated by the major activities of the business—usually the sale of products or services or both.

- **Cost of goods sold** is the major expense in merchandising companies. Note the cost of goods sold section of the classified income statement in Exhibit 39. This chapter has already discussed the items used in calculating cost of goods sold. Merchandisers usually highlight the amount by which sales revenues exceed the cost of goods sold in the top part of the income statement. The excess of net sales over cost of goods sold is the **gross margin** or **gross profit**. To express gross margin as a percentage rate, we divide gross margin by net sales. In Exhibit 39, the gross margin rate is approximately 39.3 per cent (USD 103,000/USD 262,000). The gross margin rate indicates that out of each sales dollar, approximately 39 cents is available to cover other expenses and produce income. Business owners watch the gross margin rate closely since a small percentage fluctuation can cause a large dollar change in net income. Also, a downward trend in the gross margin rate may indicate a problem, such as theft of merchandise. For instance, one Southeastern sporting goods company, SportsTown, Inc., suffered significant gross margin deterioration from increased shoplifting and employee theft.
- **Operating expenses** for a merchandising company are those expenses, other than cost of goods sold, incurred in the normal business functions of a company. Usually, operating expenses are either selling expenses or administrative expenses. **Selling expenses** are expenses a company incurs in selling and marketing efforts. Examples include salaries and commissions of salespersons, expenses for salespersons' travel, delivery, advertising, rent (or depreciation, if owned) and utilities on a sales building, sales supplies used, and depreciation on delivery trucks used in sales. **Administrative expenses** are expenses a company incurs in the overall management of a business. Examples include administrative salaries, rent (or depreciation, if owned) and utilities on an administrative building, insurance expense, administrative supplies used, and depreciation on office equipment.

Certain operating expenses may be shared by the selling and administrative functions. For example, a company might incur rent, taxes, and insurance on a building for both sales and administrative purposes. Expenses covering both the selling and administrative functions must be analyzed and prorated between the two functions on the income statement. For instance, if USD 1,000 of depreciation expense relates 60 per cent to selling and 40 per cent to administrative based on the square footage or number of employees, the income statement would show USD 600 as a selling expense and USD 400 as an administrative expense.

- **Nonoperating revenues** (other revenues) and **nonoperating expenses** (other expenses) are revenues and expenses not related to the sale of products or services regularly offered for sale by a business. An example of a nonoperating revenue is interest that a business earns on notes

receivable. An example of a nonoperating expense is interest incurred on money borrowed by the company.

To summarize the more important relationships in the income statement of a merchandising firm in equation form:

- **Net sales** = Gross sales - (Sales discounts + Sales returns and allowances).
- **Net purchases** = Purchases - (Purchase discounts + Purchase returns and allowances).
- **Net cost of purchases** = Net purchases + Transportation-in.
- **Cost of goods sold** = Beginning inventory + Net cost of purchases - Ending inventory.
- **Gross margin** = Net sales - Cost of goods sold.
- **Income from operations** = Gross margin - Operating (selling and administrative) expenses.
- **Net income** = Income from operations + Nonoperating revenues - Nonoperating expenses.

Each of these relationships is important because of the way it relates to an overall measure of business profitability. For example, a company may produce a high gross margin on sales. However, because of large sales commissions and delivery expenses, the owner may realize only a very small percentage of the gross margin as profit. The classifications in the income statement allow a user to focus on the whole picture as well as on how net income was derived (statement relationships).

An ethical perspective: World auto parts corporation

John Bentley is the chief financial officer for World Auto Parts Corporation. The company buys approximately USD 500 million of auto parts each year from small suppliers all over the world and resells them to auto repair shops in the United States.

Most of the suppliers have cash discount terms of 2/10, n/30. John has instructed his personnel to pay invoices on the 30th day after the invoice date but to take the 2 per cent discount even though they are not entitled to do so. Whenever a supplier complains, John instructs his purchasing agent to find another supplier who will go along with this practice. When some of his own employees questioned the practice, John responded as follows:

This practice really does no harm. These small suppliers are much better off to go along and have our business than to not go along and lose it. For most of them, we are their largest customer. Besides, if they are willing to sell to others at a 2 per cent discount, why should they not be willing to sell to us at that same discount even though we pay a little later? The benefit to our company is very significant. Last year

our profits were USD 100 million. A total of USD 10 million of the profits was attributable to this practice. Do you really want me to change this practice and give up USD 10 million of our profits?

7.7 Analyzing and using the financial results—Gross margin percentage

As discussed earlier, you can calculate the **gross margin percentage** by using the following formula:

$$\text{Gross margin percentage} = \frac{\text{Gross margin}}{\text{Net sales}}$$

To demonstrate the use of this ratio, consider the following information from the 2000 Annual Report of Abercrombie & Fitch.

($ millions)	*2000*	*1999*	*1998*
Revenues	$ 1,238.6	$ 1,030.9	$ 805.2
Gross profit	509.4	450.4	331.4
Gross profit (margin) percentage	$ 509.5/$1,238.6 = 41.13%	$450.4/$1,030.9 = 43.69%	$331.4/$805.2 = 41.16%

Abercrombie's gross margin held at a rather high 41-43 per cent over those three years.

You should now understand the distinction between accounting for a service company and a merchandising company. The next chapter continues the discussion of merchandise inventory carried by merchandising companies.

7.8 Understanding the learning objectives

- In a sales transaction, the seller transfers the legal ownership (title) of the goods to the buyer.
- An invoice is a document, prepared by the seller of merchandise and sent to the buyer, that contains the details of a sale, such as the number of units sold, unit price, total price, terms of sale, and manner of shipment.
- Usually sales are for cash or on account. When a sale is for cash, the debit is to Cash and the credit is to Sales. When a sale is on account, the debit is to Accounts Receivable and the credit is to Sales.
- When companies offer trade discounts, the gross selling price (gross invoice price) at which the sale is recorded is equal to the list price minus any trade discounts.

- Two common deductions from gross sales are (1) sales discounts and (2) sales returns and allowances. These deductions are recorded in contra revenue accounts to the Sales account. Both the Sales Discounts account and the Sales Returns and Allowances account normally have debit balances. Net sales = Sales - (Sales discounts + Sales returns and allowances).
- Sales discounts arise when the seller offers the buyer a cash discount of 1 per cent to 3 per cent to induce early payment of an amount due.
- Sales returns result from merchandise being returned by a buyer because the goods are considered unsatisfactory or have been damaged. A sales allowance is a deduction from the original invoiced sales price granted to a customer when the customer keeps the merchandise but is dissatisfied.
- $\text{Cost of goods sold} = \text{Beginning inventory} + \text{Net cost of purchases} - \text{Ending inventory}$.
  $\text{Net cost of purchases} = \text{Purchases} - (\text{Purchase discounts} + \text{Purchase returns}) + \text{Transportation} - ¿$
- Two methods of accounting for inventory are perpetual inventory procedure and periodic inventory procedure. Under perpetual inventory procedure, the inventory account is continuously updated during the accounting period. Under periodic inventory procedure, the inventory account is updated only periodically—after a physical count has been made.
- Purchases of merchandise are recorded by debiting Purchases and crediting Cash (for cash purchases) or crediting Accounts Payable (for purchases on account).
- Two common deductions from purchases are (1) purchase discounts and (2) purchase returns and allowances. In the general ledger, both of these items normally carry credit balances. From the buyer's side of the transactions, cash discounts are purchase discounts, and merchandise returns and allowances are purchase returns and allowances.
- FOB shipping point means free on board at shipping point—the buyer incurs the freight.
- FOB destination means free on board at destination—the seller incurs the freight.
- Passage of title is a term indicating the transfer of the legal ownership of goods.
- Freight prepaid is when the seller must initially pay the freight at the time of shipment.
- Freight collect is when the buyer must initially pay the freight on the arrival of the goods.
- Expansion and application of the relationship introduced in Learning objective 2. Beginning inventory + Net cost of purchases = Cost of goods available for sale. Cost of goods available for sale - Ending inventory = Cost of goods sold.
- A classified income statement has four major sections—operating revenues, cost of goods sold, operating expenses, and nonoperating revenues and expenses.

- Operating revenues are the revenues generated by the major activities of the business—usually the sale of products or services or both.
- Cost of goods sold is the major expense in merchandising companies.
- Operating expenses for a merchandising company are those expenses other than cost of goods sold incurred in the normal business functions of a company. Usually, operating expenses are classified as either selling expenses or administrative expenses.
- Nonoperating revenues and expenses are revenues and expenses not related to the sale of products or services regularly offered for sale by a business.
- $\text{Gross margin percentage} = \frac{\text{Gross margin}}{\text{Net sales}}$
- The gross margin rate indicates the amount of sales dollars available to cover expenses and produce income.
- Except for the merchandise-related accounts, the work sheet for a merchandising company is the same as for a service company.
- Any revenue accounts and contra purchases accounts in the Adjusted Trial Balance credit column of the work sheet are carried to the Income Statement credit column.
- Beginning inventory, contra revenue accounts. Purchases, Transportation-In, and expense accounts in the Adjusted Trial Balance debit column are carried to the Income Statement debit column.
- Ending merchandise inventory is entered in the Income Statement credit column and in the Balance Sheet debit column.
- Closing entries may be prepared directly from the work sheet. The first journal entry debits all items appearing in the Income Statement credit column and credits Income Summary. The second entry credits all items appearing in the Income Statement debit column and debits Income Summary. The third entry debits Income Summary and credits the Retained Earnings account (assuming positive net income). The fourth entry debits the Retained Earnings account and credits the Dividends account.

7.9 Appendix: The work sheet for a merchandising company

Exhibit 40 shows a work sheet for a merchandising company. Lyons Company is a small sporting goods firm. The illustration for Lyons Company focuses on merchandise-related accounts. Thus, we do not show the fixed assets (land, building, and equipment). Except for the merchandise-related accounts, the work sheet for a merchandising company is the same as for a service company. Recall

that use of a work sheet assists in the preparation of the adjusting and closing entries. The work sheet also contains all the information needed for the preparation of the financial statements.

To further simplify this illustration, assume Lyons needs no adjusting entries at month-end. The trial balance is from the ledger accounts at 2010 December 31. The USD 7,000 merchandise inventory in the trial balance is the beginning inventory. The sales and sales-related accounts and the purchases and purchases-related accounts summarize the merchandising activity for December 2010.

Lyons carries any revenue accounts (Sales) and contra purchases accounts (Purchase Discounts, Purchase Returns and Allowances) in the Adjusted Trial Balance credit columns of the work sheet to the Income Statement credit column. It carries beginning inventory, contra revenue accounts (Sales Discounts, Sales Returns and Allowances), Purchases, Transportation-In, and expense accounts (Selling Expenses, Administrative Expenses) in the Adjusted Trial Balance debit column to the Income Statement debit column.

Assume that ending inventory is USD 8,000. Lyons enters this amount in the Income Statement credit column because it is deducted from cost of goods available for sale (beginning inventory plus net cost of purchases) in determining cost of goods sold. It also enters the ending inventory in the Balance Sheet debit column to establish the proper balance in the Merchandise Inventory account. The beginning and ending inventories are on the Income Statement because Lyons uses both to calculate cost of goods sold in the income statement. Net income of USD 5,843 for the period balances the Income Statement columns. The firm carries the net income to the Statement of Retained Earnings credit column. Retained earnings of USD 18,843 balances the Statement of Retained Earnings columns. Lyons Company carries the retained earnings to the Balance Sheet credit column.

Lyons carries all other asset account balances (Cash, Accounts Receivable, and ending Merchandise Inventory) to the Balance Sheet debit column. It also carries the liability (Accounts Payable) and Capital Stock account balances to the Balance Sheet credit column. The balance sheet columns total to USD 29,543.

Once the work sheet has been completed, Lyons prepares the financial statements. After entering any adjusting and closing entries in the journal, the firm posts them to the ledger. This process clears the records for the next accounting period. Finally, it prepares a post-closing trial balance.

Income statement Exhibit 41 shows the income statement Lyons prepared from its work sheet in Exhibit 40. The focus in this income statement is on determining the cost of goods sold.

Statement of retained earnings The statement of retained earnings, as you recall, is a financial statement that summarizes the transactions affecting the Retained Earnings account balance. In

Exhibit 42, the statement of retained earnings shows an increase in equity resulting from net income and a decrease in equity resulting from dividends.

LYONS COMPANY
Worksheet
For the Month Ended 2010 December 31

Acct. no.	Account Titles	Trial Balance		Adjustments		Adjusted **Trial** Balance		Income Statement		Statement of Retained Earnings		Balance Sheet
		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
100	**Cash**	**19,663**				**19,663**						**19,653**
103	**Accounts Receivable**	**1,380**				**1,880**						**1,880**
105	**Merchandise Inventory, December 1**	**7,000**				**7,000**		**7,000**	**8,000**			**8,000**
200	**Accounts Payable**		**700**				**700**					
300	**Capital Stock**		**10,000**				**10,000**					
310	**Retained Earnings, Decernl5er 1**		**15,000**				**15,000**				**15,000**	
320	**Dividends**	**2,000**				**2,000**				**2,000**		
410	**Sales**		**14,600**				**14,600**		**14,600**			
411	**Sales Discounts**	**44**				**44**		**44**				
412	**Sales Returns and Allowances**	**20**				**20**		**20**				
500	**Purchases**	**6,000**				**6,000**		**6,000**				
SOI	**Purchases Discounts**		**82**				**82**		**32**			
502	**Purchase Returns and Allowances**		**100**				**100**		**100**			
503	**Transportation-In**	**75**				**75**		**75**				
557	**Miscellaneous Selling Expenses**	**2,650**				**2,650**		**2,650**				
567	**Miscellaneous Administrative Expenses**	**1,150**				**1,150**		**1,150**				
		40,482	**40,482**			**40,432**	**40,482**	**16,939**	**22,782**			
	Net Income							**5,843**			**5,343**	
								22,732	**22,782**	**2,000**	**20,343**	**29,543**
	Retained Earnings, December 31									**18,S43**		
										20,843	**20,843**	**29,543**

Exhibit 40: Work sheet for a merchandising company

LYONS COMPANY

Income Statement

For the Month Ended 2010 December 31

Operating revenues:				
Gross sales				$14,600
Less: Sales discounts			$ 44	
Sales return and allowances			20	64
Net sales				$14,536
Cost of goods sold:				
Merchandise inventory, 2010 January 1			$ 7,000	
Purchases		$ 6,000		
Less: Purchase discount	$ 82			
Purchase returns and allowances	100	182		
Net purchases		$5,818		
Add: Transportation-in		75		
Net cost of purchases			5,893	
Cost of goods available for sale			$12,89 3	
Less: Merchandise inventory, 2010 December 31			8,000	
Cost of goods sold				4,893
Gross Margin				$ 9,643
Operating expenses:				
Miscellaneous selling expense			$2,650	
Miscellaneous administrative expense			1,150	
Total operating expenses				3,800
Net income				$ 5,843

Exhibit 41: Income statement for a merchandising company

LYONS COMPANY

Statement of Retained Earnings

For the Month Ended 2010 December 31

Retained earnings, 2010 December 1	$15,000
Add: Net income for the month	5,843
Total	$20,843
Deduct: Dividends	2,000
Retained earnings, 2010 December 31	$18,843

Exhibit 42: Statement of retained earnings

LYONS COMPANY		
Balance Sheet 2010 December 31		
Assets		
Cash		$19,663
Accounts receivable		1,880
Merchandise inventory		8,000
Total assets		$29,543
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable		$ 700
Stockholders' equity:		
Capital stock	$ 10,000	
Retained earnings	18,843	
Total stockholders' equity Total liabilities and stockholders' equity		28,843 $29,543

Exhibit 43: Balance sheet for a merchandising company

Balance sheet The balance sheet, Exhibit 43, contains the assets, liabilities, and stockholders' equity items taken from the work sheet. Note the USD 8,000 ending inventory is a current asset. The Retained Earnings account balance comes from the statement of retained earnings.

Recall from Chapter 4 that the closing process normally takes place after the accountant has prepared the financial statements for the period. The closing process closes revenue and expense accounts by transferring their balances to a clearing account called Income Summary and then to Retained Earnings. The closing process reduces the revenue and expense account balances to zero so that information for each accounting period may be accumulated separately.

Lyons's accountant would prepare closing entries directly from the work sheet in Exhibit 40 using the same procedure presented in Chapter 4. The closing entries for Lyons Company follow.

The first journal entry debits all items appearing in the Income Statement credit column of the work sheet and credits Income Summary for the total of the column, USD 22,782.

	2010				
• 1st entry	Dec.	31	Merchandise Inventory (ending) Sales Purchase Discounts Purchase Returns and Allowances Income Summary To close accounts with a credit balance in the Income Statement columns and to establish ending merchandise inventory.	8,000 14,600 82 100	22,782

The second entry credits all items appearing in the Income Statement debit column and debits Income Summary for the total of that column, USD 16,939.

	2010				
	Dec.	31	Income Summary	16,939	7,000
			Merchandise Inventory (beginning)		44
			Sales Discounts		20
			Sales Returns and Allowance		
• 2nd entry			Purchases		6,000
			Transportation-In		75
			Miscellaneous Selling Expenses		2,650
			Miscellaneous Administrative Expenses		1,150
			To close accounts with a debit balance in the Income Statement columns.		

The third entry closes the credit balance in the Income Summary account of USD 5,843 to the Retained Earnings account.

2010			5,843	
Dec.	31	Income Summary		5,843
		Retained Earnings		
		To close the Income Summary account to the Retained Earnings account.		

The fourth entry closes the Dividends account balance of $2,000 to the Retained Earnings account by debiting Retained Earnings and crediting Dividends.

2010			2,000	
Dec.	31	Retained Earnings		2,000
		Dividends		
		To close the Dividends account to the Retained Earnings account.		

Note how the first three closing entries tie into the totals in the Income Statement columns of the work sheet in Exhibit 40. In the first closing journal entry, the credit to the Income Summary account is equal to the total of the Income Statement credit column. In the second entry, the debit to the Income Summary account is equal to the subtotal of the Income Statement debit column. The difference between the totals of the two Income Statement columns (USD 5,843) represents net income and is the amount of the third closing entry.

7.9.1 Demonstration problem

The following transactions occurred between Companies C and D in June 2010:

June 10 Company C purchased merchandise from Company D for USD 80,000; terms 2/10/EOM, n/60, FOB destination, freight prepaid.

11 Company D paid freight of USD 1,200.

14 Company C received an allowance of USD 4,000 from the gross selling price because of damaged goods.

23 Company C returned USD 8,000 of goods purchased because they were not the quality ordered.

30 Company D received payment in full from Company C.

a. Journalize the transactions for Company C.

b. Journalize the transactions for Company D.

7.9.2 Solution to demonstration problem

a.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 June	10	*Company C* Purchases		8 0 0 0 0	
		Accounts Payable			8 0 0 0 0
		Purchased merchandise from Company D; terms 2/10/EOM, n/60			
	14	Accounts Payable		4 0 0 0	
		Purchase Return and Allowances			4 0 0 0
		Received an allowance from Company D for damaged goods.			
	23	Accounts Payable		8 0 0 0	
		Purchase Returns and Allowances			8 0 0 0
		Returned merchandise to Company D because of improper quality			
	30	Accounts Payable ($80,000 - $4,000 - $8,000)		6 8 0 0 0	
		Purchase Discounts ($68,000 x 0.02)			1 3 6 0
		Cash ($68,000 - $1,360)			6 6 6 4 0
		Paid the amount due to Company D.			

b.

General Journal

Date		Account Titles and Explanation	Post. Ref.	Debit	Credit
2010 June	10	*Company D* Accounts Receivable		8 0 0 0 0	
		Sales			8 0 0 0 0
		Sold merchandise to Company C; terms 2/10/EOM, n/60			
	11	Delivery Expense		1 2 0 0	
		Cash			1 2 0 0
		Paid freight on sale of merchandise shipped FOB destination, freight prepaid.			
	14	Sales Returns and Allowances		4 0 0 0	
		Accounts Receivable			4 0 0 0
		Granted an allowance to Company C for damaged goods.			
	23	Sales Returns and Allowances		8 0 0 0	
		Accounts Receivable			8 0 0 0
		Merchandise returned from Company C due to improper quality.			
	30	Cash ($68,000 - $1,360)		6 6 6 4 0	
		Sales Discounts ($68,000 x 0.02)		1 3 6 0	
		Accounts Receivable ($80,000 - $4,000 - $8,000)			6 8 0 0 0
		Received the amount due from Company C.			

7.10 Key terms

Adjunct account Closely related to another account; its balance is added to the balance of the related account in the financial statements.

Administrative expenses Expenses a company incurs in the overall management of a business.

Cash discount A deduction from the invoice price that can be taken only if the invoice is paid within a specified time. To the seller, it is a sales discount; to the buyer, it is a purchase discount.

Chain discount Occurs when the list price of a product is subject to a series of trade discounts.

Classified income statement Divides both revenues and expenses into operating and nonoperating items. The statement also separates operating expenses into selling and administrative expenses. Also called the multiple-step income statement.

Consigned goods Goods delivered to another party who attempts to sell the goods for the owner at a commission.

Cost of goods available for sale Equal to beginning inventory plus net cost of purchases.

Cost of goods sold Shows the cost to the seller of the goods sold to customers; under periodic inventory procedure, cost of goods sold is computed as Beginning inventory + Net cost of purchases - Ending inventory.

Delivery expense A selling expense recorded by the seller for freight costs incurred when terms are FOB destination.

FOB destination Means free on board at destination; goods are shipped to their destination without charge to the buyer; the seller is responsible for paying the freight charges.

FOB shipping point Means free on board at shipping point; buyer incurs all transportation costs after the merchandise is loaded on a railroad car or truck at the point of shipment.

Freight collect Terms that require the buyer to pay the freight bill on arrival of the goods.

Freight prepaid Terms that indicate the seller has paid the freight bill at the time of shipment.

Gross margin or gross profit Net sales - Cost of goods sold; identifies the number of dollars available to cover expenses other than cost of goods sold.

Gross margin percentage Gross margin divided by net sales.

Gross selling price (also called the invoice price) The list price less all trade discounts.

Income from operations Gross margin - Operating (selling and administrative) expenses.

Invoice A document prepared by the seller of merchandise and sent to the buyer. It contains the details of a sale, such as the number of units sold, unit price, total price billed, terms of sale, and manner of shipment. It is a purchase invoice from the buyer's point of view and a sales invoice from the seller's point of view.

Manufacturers Companies that produce goods from raw materials and normally sell them to wholesalers.

Merchandise in transit Merchandise in the hands of a freight company on the date of a physical inventory.

Merchandise inventory The quantity of goods available for sale at any given time.

Net cost of purchases Net purchases + Transportation-in.

Net income Income from operations + Nonoperating revenues - Nonoperating expenses.

Net purchases Purchases - (Purchase discounts +Purchase returns and allowances).

Net sales Gross sales - (Sales discounts + Sales returns and allowances).

Nonoperating expenses (other expenses) Expenses incurred by a business that are not related to the acquisition and sale of the products or services regularly offered for sale.

Nonoperating revenues (other revenues) Revenues not related to the sale of products or services regularly offered for sale by a business.

Operating expenses Those expenses other than cost of goods sold incurred in the normal business functions of a company.

Operating revenues Those revenues generated by the major activities of a business.

Passage of title A legal term used to indicate transfer of legal ownership of goods.

Periodic inventory procedure A method of accounting for merchandise acquired for sale to customers wherein the cost of merchandise sold and the cost of merchandise on hand are determined only at the end of the accounting period by taking a physical inventory.

Perpetual inventory procedure A method of accounting for merchandise acquired for sale to customers wherein the Merchandise Inventory account is continuously updated to reflect

items on hand; this account is debited for each purchase and credited for each sale so that the current balance is shown in the account at all times.

Physical inventory Consists of counting physical units of each type of merchandise on hand.

Purchase discount See Cash discount.

Purchase Discounts account A contra account to Purchases that reduces the recorded gross invoice cost of the purchase to the price actually paid.

Purchase Returns and Allowances account An account used under periodic inventory procedure to record the cost of merchandise returned to a seller and to record reductions in selling prices granted by a seller because merchandise was not satisfactory to a buyer; viewed as a reduction in the recorded cost of purchases.

Purchases account An account used under periodic inventory procedure to record the cost of goods or merchandise bought for resale during the current accounting period.

Retailers Companies that sell goods to final consumers.

Sales allowance A deduction from original invoiced sales price granted to a customer when the customer keeps the merchandise but is dissatisfied for any of a number of reasons, including inferior quality, damage, or deterioration in transit.

Sales discount See Cash discount.

Sales Discounts account A contra revenue account to Sales; it is shown as a deduction from gross sales in the income statement.

Sales return From the seller's point of view, merchandise returned by a buyer for any of a variety of reasons; to the buyer, a purchase return.

Sales Returns and Allowances account A contra revenue account to Sales used to record the selling price of merchandise returned by buyers or reductions in selling prices granted.

Selling expenses Expenses a company incurs in selling and marketing efforts.

Trade discount A percentage deduction, or discount, from the specified list price or catalog price of merchandise to arrive at the gross invoice price; granted to particular categories of customers (e.g. retailers and wholesalers). Also see Chain discount.

Transportation-In account An account used under periodic inventory procedure to record inward freight costs incurred in the acquisition of merchandise; a part of cost of goods sold.

Unclassified income statement Shows only major categories for revenues and expenses. Also called the single-step income statement.

Wholesalers Companies that normally sell goods to other companies (retailers) for resale.

7.11 Self-test

7.11.1 True-false

Indicate whether each of the following statements is true or false.

- To compute net sales, sales discounts are added to, and sales returns and allowances are deducted from, gross sales.
- Under perpetual inventory procedure, the Merchandise Inventory account is debited for each purchase and credited for each sale.

- Purchase discounts and purchase returns and allowances are recorded in contra accounts to the Purchases account.
- In taking a physical inventory, consigned goods delivered to another party who attempts to sell the goods are not included in the ending inventory of the company that sent the goods.
- A classified income statement consists of only two categories of items, revenues and expenses.

7.11.2 Multiple-choice

Select the best answer for each of the following questions.

A seller sold merchandise which has a list price of USD 4,000 on account, giving a trade discount of 20 per cent. The entry on the books of the seller is:

a.	Accounts Receivable	3,200	
	Trade Discounts	800	
	Sales		4,000
b.	Accounts Receivable	4,000	
	Sales		4,000
c.	Accounts Receivable	3,200	
	Trade Discounts	800	
	Sales		4,000
d.	Accounts Receivable	3,200	
	Sales		3,200

X Company began the accounting period with USD 60,000 of merchandise, and net cost of purchases was USD 240,000. A physical inventory showed USD 72,000 of merchandise unsold at the end of the period. The cost of goods sold of Y Company for the period is:

a. USD 300,000.

b. USD 228,000.

c. USD 252,000.

d. USD 168,000.

e. None of the above.

A business purchased merchandise for USD 12,000 on account; terms are 2/10, n/30. If USD 2,000 of the merchandise was returned and the remaining amount due was paid within the discount period, the purchase discount would be:

a. USD 240.

b. USD 200.

c. USD 1,200.
d. USD 1,000.
e. USD 3,600.

A classified income statement consists of all of the following major sections except for:
a. Operating revenues.
b. Cost of goods sold.
c. Operating expenses.
d. Nonoperating revenues and expenses.
e. Current assets.

(Appendix) Closing entries for merchandise-related accounts include all of the following except for:
a. A credit to Sales Discounts.
b. A credit to Merchandise Inventory for the cost of ending inventory.
c. A debit to Purchase Discounts.
d. A credit to Transportation-In.
e. A debit to Sales.

Now turn to “Answers to self-test” at the end of the chapter to check your answers.

7.11.3 Questions

- Which account titles are likely to appear in a merchandising company's ledger that do not appear in the ledger of a service enterprise?
- What entry is made to record a sale of merchandise on account under periodic inventory procedure?
- Describe trade discounts and chain discounts.
- Sales discounts and sales returns and allowances are deducted from sales on the income statement to arrive at net sales. Why not deduct these directly from the Sales account by debiting Sales each time a sales discount, return, or allowance occurs?
- What are the two basic procedures for accounting for inventory? How do these two procedures differ?
- What useful purpose does the Purchases account serve?

- What do the letters FOB stand for? When terms are FOB destination, who incurs the cost of freight?
- What type of an expense is delivery expense? Where is this expense reported in the income statement?
- Periodic inventory procedure is said to afford little control over inventory. Explain why.
- How does the accountant arrive at the total dollar amount of the inventory after taking a physical inventory?
- How is cost of goods sold determined under periodic inventory procedure?
- If the cost of goods available for sale and the cost of the ending inventory are known, what other amount appearing on the income statement can be calculated?
- What are the major sections in a classified income statement for a merchandising company, and in what order do these sections appear?
- What is gross margin? Why might management be interested in the percentage of gross margin to net sales?
- (Appendix) After closing entries are posted to the ledger, which types of accounts have balances? Why?
- **The Limited, Inc.** Based on the financial statements of The Limited in the Annual Report Appendix, what were the 2000 operating expenses? For each of the three years shown, what percentage of net sales were these expenses? Is the trend favorable or unfavorable?
- **The Limited, Inc.** Based on the financial statements of The Limited, Inc., in the Annual Report Appendix, what were the 2000 cost of goods sold, occupancy, and buying costs? For each of the three years shown, what percentage of net sales were these expenses? Is the trend favorable or unfavorable?

7.11.4 Exercises

Exercise A In the following table, indicate how to increase or decrease (debit or credit) each account, and indicate its normal balance (debit or credit).

Title of Account	*Increased by (debit or credit)*	*Decreased by (debit or credit)*	*Normal Balance (debit or credit)*
Merchandise Inventory			
Sales			

Sales Returns and Allowances
Sales Discounts
Accounts Receivable
Purchases
Purchase Returns and Allowances
Purchase Discounts
Accounts Payable
Transportation-In

Exercise B a. Silver Company purchased USD 56,000 of merchandise from Milton Company on account. Before paying its account, Silver Company returned damaged merchandise with an invoice price of USD 11,680. Assuming use of periodic inventory procedure, prepare entries on both companies' books to record both the purchase/sale and the return.

b. Show how any of the required entries would change assuming that Milton Company granted an allowance of USD 3,360 on the damaged goods instead of giving permission to return the merchandise.

Exercise C What is the last payment date on which the cash discount can be taken on goods sold on March 5 for USD 51,200; terms 3/10/EOM, n/60? Assume that the bill is paid on this date and prepare the correct entries on both the buyer's and seller's books to record the payment.

Exercise D You have purchased merchandise with a list price of USD 36,000. Because you are a wholesaler, you are granted a trade discount of 49.6 per cent. The cash discount terms are 2/EOM, n/60. How much will you remit if you pay the invoice by the end of the month of purchase? How much will discounts on payment you remit if you do not pay the invoice until the following month?

Exercise E Lasky Company sold merchandise with a list price of USD 60,000 on July 1. For each of the following independent assumptions, calculate (1) the gross selling price used to record the sale and (2) the amount that the buyer would have to remit when paying the invoice.

Trade Discount Granted	*Credit Terms*	*Date Paid*
a. 30%, 20%	2/10, n/30	July 10
b. 40%, 10%	2/EOM, n/60	August 10
c. 30%, 10%, 5%	3/10/EOM, n/60	August 10
d. 40%	1/10, n/30	July 12

Exercise F Raiser Company purchased goods at a gross selling price of USD 2,400 on August 1. Discount terms of 2/10, n/30 were available. For each of the following independent situations,

determine (1) the cash discount available on the final payment and (2) the amount paid if payment is made within the discount period.

Transportation Terms	*Freight Paid (by)*	*Purchase Allowance Granted*
a. FOB shipping point	$240 (buyer)	$480
b. FOB destination	120 (seller)	240
c. FOB shipping point	180 (seller)	720
d. FOB destination	192 (buyer)	120

Exercise G Stuart Company purchased goods for USD 84,000 on June 14, under the following terms: 3/10, n/ 30; FOB shipping point, freight collect. The bill for the freight was paid on June 15, USD 1,200.

a. Assume that the invoice was paid on June 24, and prepare all entries required on Stuart Company's books.

b. Assume that the invoice was paid on July 11. Prepare the entry to record the payment made on that date.

Exercise H Cramer Company uses periodic inventory procedure. Determine the cost of goods sold for the company assuming purchases during the period were USD 40,000, transportation-in was USD 300, purchase returns and allowances were USD 1,000, beginning inventory was USD 25,000, purchase discounts were USD 2,000, and ending inventory was USD 13,000.

Exercise I In each case, use the following information to calculate the missing information:

	Case 1	*Case 2*	*Case 3*
Gross sales	$ 640,000	$?	$?
Sales discounts	?	25,600	19,200
Sales returns and allowances	19,200	44,800	32,000
Net sales	608,000	1,209,600	
Merchandise inventory, January 1	256,000		384,000
Purchases	384,000	768,000	
Purchase discounts	7,680	13,440	12,800
Purchase returns and allowances	24,320	31,360	32,000
Net purchases	352,000		672,000
Transportation-in	25,600	38,400	32,000
Net cost of purchases	377,600	761,600	?
Cost of goods available for sale	?	1,081,600	1,088,000
Merchandise inventory, December 31	?	384,000	448,000
Cost of goods sold	320,000	?	640,000
Gross margin		512,000	320,000

Exercise J In each of the following equations supply the missing term(s):

a. Net sales = Gross sales - (________________________ + Sales returns and allowances).

b. Cost of goods sold = Beginning inventory + Net cost of purchases - _________ _________.

c. Gross margin = _________ _________ - Cost of goods sold.

d. Income from operations = ___________ __________ - Operating expenses.

e. Net income = Income from operations + __________ _________ - _________ _________.

Exercise K Given the balances in this partial trial balance, indicate how the balances would be treated in the work sheet. The ending inventory is USD 96. (The amounts are unusually small for ease in rewriting the numbers. We purposely left out the Statement of Retained Earnings columns since they are not used.)

Accounts Titles	*Trial Balance*		*Adjustments*		*Adjusted Trial Balance*		*Income Statement*		*Balance Sheet*	
	Debit	*Credit*	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*	*Credit*
Merchandise Inventory	120									
Sales		S40								
Sales Discounts	18									
Sales Returns and Allowances	45									
Purchases	600									
Purchase Discounts		12								
Purchase Returns and Allowances		24								
Transportation-In	36									

Exercise L Using the data in the previous exercise prepare closing entries for the preceding accounts. Do not close the Income Summary account.

7.11.5 Problems

Problem A a. Spencer Sporting Goods Company engaged in the following transactions in April 2010:

Apr. 1 Sold merchandise on account for USD 288,000; terms 2/10, n/30, FOB shipping point, freight collect.

5 USD 43,200 of the goods sold on account on April 1 were returned for a full credit. Payment for these goods had not yet been received.

8 A sales allowance of USD 5,760 was granted on the merchandise sold on April 1 because the merchandise was damaged in shipment.

10 Payment was received for the net amount due from the sale of April 1.

b. High Stereo Company engaged in the following transactions in July 2010.

July 2 Purchased stereo merchandise on account at a cost of USD 43,200; terms 2/10, n/30, FOB destination, freight prepaid.

15 Sold merchandise for USD 64,800, terms 2/10, n/30, FOB destination, freight prepaid.

16 Paid freight costs on the merchandise sold, USD 2,160.

20 High Stereo Company was granted an allowance of USD 2,880 on the purchase of July 2 because of damaged merchandise.

31 Paid the amount due on the purchase of July 2.

Prepare journal entries to record the transactions.

Problem B Mars Musical Instrument Company and Tiger Company engaged in the following transactions with each other during July 2010:

July 2 Mars Musical Instrument Company purchased merchandise on account with a list price of USD 48,000 from Tiger Company. The terms were 3/EOM, n/60, FOB shipping point, freight collect. Trade discounts of 15 per cent, 10 per cent, and 5 per cent were granted by Tiger Company.

5 The buyer paid the freight bill on the purchase of July 2, USD 1,104.

6 The buyer returned damaged merchandise with an invoice price of USD 2,790 to the seller and received full credit.

On the last day of the discount period, the buyer paid the seller for the merchandise.

Prepare all the necessary journal entries for the buyer and the seller.

Problem C The following data for June 2010 are for Rusk Company's first month of operations:

June 1 Rusk Company was organized, and the stockholders invested USD 1,008,000 cash, USD 336,000 of merchandise inventory, and a USD 288,000 plot of land in exchange for capital stock.

4 Merchandise was purchased for cash, USD 432,000; FOB shipping point, freight collect.

9 Cash of USD 10,080 was paid to a trucking company for delivery of the merchandise purchased June 4.

13 The company sold merchandise on account, USD 288,000; terms 2/10, n/ 30.

15 The company sold merchandise on account, USD 230,400; terms 2/10, n/30.

16 Of the merchandise sold June 13, USD 31,680 was returned for credit.

20 Salaries for services received were paid as follows: to office employees, USD 31,680; to salespersons, USD 83,520.

22 The company collected the amount due on the remaining USD 256,320 of accounts receivable arising from the sale of June 13.

24 The company purchased merchandise on account at a cost of USD 345,600; terms 2/10, n/30, FOB shipping point, freight collect.

26 The company returned USD 57,600 of the merchandise purchased June 24 to the vendor for credit.

27 A trucking company was paid USD 7,200 for delivery to Rusk Company of the goods purchased June 24.

29 The company sold merchandise on account, USD 384,000; terms 2/10, n/30.

30 Sold merchandise for cash, USD 172,800.

30 Payment was received for the sale of June 15.

30 Paid store rent for June, USD 43,200.

30 Paid the amount due on the purchase of June 24.

The inventory on hand at the close of business June 30 was USD 672,000 at cost.

a. Prepare journal entries for the transactions.

b. Post the journal entries to the proper ledger accounts. Use the account numbers in the chart of accounts shown in a separate file at the end of the text. Assume that all postings are from page 20 of the general journal.

c. Prepare a trial balance as of 2010 June 30.

d. Prepare a classified income statement for the month ended 2010 June 30. No adjusting entries are needed.

Problem D The Western Wear Company, a wholesaler of western wear clothing, sells to retailers. The company entered into the following transactions in May 2010:

May 1 The Western Wear Company was organized as a corporation. The stockholders purchased stock at par for the following assets in the business: USD 462,000 cash, USD 168,000 merchandise, and USD 105,000 land.

1 Paid rent on administrative offices for May, USD 25,200.

5 The company purchased merchandise from Carl Company on account, USD 189,000; terms 2/10, n/30. Freight terms were FOB shipping point, freight collect.

8 Cash of USD 8,400 was paid to a trucking company for delivery of the merchandise purchased May 5.

14 The company sold merchandise on account, USD 315,000; terms 2/10, n/30.

15 Paid Carl Company the amount due on the purchase of May 5.

16 Of the merchandise sold May 14, USD 13,860 was returned for credit.

19 Salaries for services received were paid for May as follows: office employees, USD 16,800; salespersons, USD 33,600.

24 The company collected the amount due on USD 126,000 of the accounts receivable arising from the sale of May 14.

25 The company purchased merchandise on account from Bond Company, USD 151,200; terms 2/10, n/30. Freight terms were FOB shipping point, freight collect.

27 Of the merchandise purchased May 25, USD 25,200 was returned to the vendor.

28 A trucking company was paid USD 2,100 for delivery to The Western Wear Company of the goods purchased May 25.

29 The company sold merchandise on open account, USD 15,120; terms 2/10, n/30.

30 Cash sales were USD 74,088.

30 Cash of USD 100,800 was received from the sale of May 14.

31 Paid Bond Company for the merchandise purchased on May 25, taking into consideration the merchandise returned on May 27.

The inventory on hand at the close of business on May 31 is USD 299,040.

From the data given for The Western Wear Company:

a. Prepare journal entries for the transactions.

b. Post the journal entries to the proper ledger accounts. Use the account numbers in the chart of accounts shown in a separate file at the end of the text. Assume that all postings are from page 15 of the general journal.

(There were no adjusting journal entries.)

c. Prepare a trial balance.

d. Prepare a classified income statement for the month ended 2010 May 31.

e. Prepare a classified balance sheet as of 2010 May 31.

Problem E The following data are for Leone Lumber Company:

	LEONE LUMBER COMPANY		
	Trial Balance		
	2010 December 31		
Acct. No.	***Account Title***	***Debits***	***Credits***
100	Cash	$ 70,640	
103	Accounts Receivable	159,520	
105	Merchandise Inventory, 2010 January 1	285,200	
107	Supplies on Hand	5,360	
108	Prepaid Insurance	4,800	
112	Prepaid Rent	57,600	
170	Equipment	88,000	$ 17,600
171	Accumulated Depreciation—Equipment		102,800
200	Accounts Payable		200,000
300	Capital Stock		219,640
310	Retained Earnings, 2010 January 1		1,122,360
410	Sales		
412	Sales Returns and Allowances	5,160	
418	Interest Revenue		$ 1,000
500	Purchases	$ 500,840	
502	Purchases Returns and Allowances		$4,040
503	Transportation-In	$7,840	
505	Advertising Expense	78,000	
508	Sales Salaries Expense	138,400	
509	Office Salaries Expense	80,800	
510	Officers' Salaries Expense	160,000	
511	Utilities Expense	4,800	
536	Legal and Accounting Expense	10,000	
540	Interest Expense	600	
567	Miscellaneous Administrative Expense	9,880	
		$1,667,440	$1,667,440

- A total of USD 3,400 of the prepaid insurance has expired.
- An inventory of supplies showed that USD 1,700 are still on hand.
- Prepaid rent expired during the year is USD 50,600.
- Depreciation expense on store equipment is USD 8,800.
- Accrued sales salaries are USD 4,000.
- Accrued office salaries are USD 3,000.
- Merchandise inventory on hand is USD 350,000.

Prepare the following:

a. A work sheet for the year ended 2010 December 31. Refer to the chart of accounts shown in a separate file at the end of the text for any other account numbers you need.

b. A classified income statement. The only selling expenses are sales salaries, advertising, supplies, and depreciation expense—equipment.

c. A statement of retained earnings.

d. A classified balance sheet.

e. Required closing entries.

7.11.6 Alternate problems

Alternate problem A

a. Candle Carpet Company engaged in the following transactions in August 2010:

Aug. 2 Sold merchandise on account for USD 300,000; terms 2/10, n/30, FOB shipping point, freight collect.

18 Received payment for the sale of August 2.

20 A total of USD 10,000 of the merchandise sold on August 2 was returned, and a full refund was made because it was the wrong merchandise.

28 An allowance of USD 16,000 was granted on the sale of August 2 because some merchandise was found to be damaged; USD 16,000 cash was returned to the customer.

b. Lee Furniture Company engaged in the following transactions in August 2010:

Aug. 4 Purchased merchandise on account at a cost of USD 140,000; terms 2/10, n/30, FOB shipping point, freight collect.

6 Paid freight of USD 2,000 on the purchase of August 4.

10 Sold goods for USD 100,000; terms 2/10, n/30.

12 Returned USD 24,000 of the merchandise purchased on August 4.

14 Paid the amount due on the purchase of August 4.

Prepare journal entries for the transactions.

Alternate problem B Edwardo Auto Parts Company and Spoon Company engaged in the following transactions with each other during August 2010:

Aug.15 Edwardo Auto Parts Company purchased merchandise on account with a list price of USD 192,000 from Spoon Company. Trade discounts of 20 per cent and 10 per cent were allowed. Terms were 2/10, n/30, FOB destination, freight prepaid.

16 The seller paid the freight charges, USD 2,400.

17 The buyer requested an allowance of USD 4,512 against the amount due because the goods were damaged in transit.

20 The seller granted the allowance requested on August 17.

The buyer paid the amount due on the last day of the discount period. Record all of the entries required on the books of both the buyer and the seller.

Alternate problem C Gardner Company engaged in the following transactions in June 2010, the company's first month of operations:

June 1 Stockholders invested USD 384,000 cash and USD 144,000 of merchandise inventory in the business in exchange for capital stock.

3 Merchandise was purchased on account, USD 192,000; terms 2/10, n/30, FOB shipping point, freight collect.

4 Paid height on the June 3 purchase, USD 5,280.

7 Merchandise was purchased on account, USD 96,000; terms 2/10, n/30, FOB destination, freight prepaid.

10 Sold merchandise on account, USD 230,400; terms 2/10, n/30, FOB shipping point, freight collect.

11 Returned USD 28,800 of the merchandise purchased on June 3.

12 Paid the amount due on the purchase of June 3.

13 Sold merchandise on account, USD 240,000; terms 2/10, n/30, FOB destination, height prepaid.

14 Paid height on sale of June 13, USD 14,400.

20 Paid the amount due on the purchase of June 7.

21 USD 48,000 of the goods sold on June 13 were returned for credit.

22 Received the amount due on sale of June 13.

25 Received the amount due on sale of June 10.

29 Paid rent for the administration building for June, USD 19,200.

30 Paid sales salaries of USD 57,600 for June.

30 Purchased merchandise on account, USD 48,000; terms 2/10, n/30, FOB destination, freight prepaid.

The inventory on hand on June 30 was USD 288,000.

a. Prepare journal entries for the transactions.

b. Post the journal entries to the proper ledger accounts. Use the account numbers in the chart of accounts shown in a separate file at the end of the text. Assume that all postings are from page 10 of the general journal.

c. Prepare a trial balance as of 2010 June 30.

d. Prepare a classified income statement for the month ended 2010 June 30. No adjusting entries are needed.

Alternate problem D Organized on 2010 May 1, Noah Cabinet Company engaged in the following transactions:

May 1 The stockholders invested USD 900,000 in this new business by purchasing capital stock.

1 Purchased merchandise on account from String Company, USD 46,800; terms n/60, FOB shipping point, freight collect.

3 Sold merchandise for cash, USD 28,800.

6 Paid transportation charges on May 1 purchase, USD 1,440 cash.

7 Returned USD 3,600 of merchandise to String Company due to improper size.

10 Requested and received an allowance of USD 1,800 from String Company for improper quality of certain items.

14 Sold merchandise on account to Texas Company, USD 18,000; terms 2/20, n/30, FOB shipping point, freight collect.

16 Issued cash refund for return of merchandise relating to sale made on May 3, USD 180.

18 Purchased merchandise on account from Tan Company invoiced at USD 28,800; terms 2/15, n/30, FOB shipping point, freight collect.

18 Received a bill for freight charges of USD 900 from Ball Trucking Company on the purchase from Tan Company.

19 Texas Company returned USD 360 of merchandise purchased on May 14.

24 Returned USD 2,880 of defective merchandise to Tan Company. Received full credit.

28 Texas Company remitted balance due on sale of May 14.

31 Paid Tan Company for the purchase of May 18 after adjusting for transaction of May 24.

31 Paid miscellaneous selling expenses of USD 7,200.

31 Paid miscellaneous administrative expenses of USD 10,800.

The May 31st inventory is USD 57,600.

From the data for Noah Cabinet Company:

a. Journalize the transactions. Round all amounts to the nearest dollar.

b. Post the entries to the proper ledger accounts. Use the account numbers appearing in the chart of account shown in a separate file at the end of the text. Assume all postings are from page 5 of the general journal.

(There were no adjusting journal entries.)

c. Prepare a trial balance.

d. Prepare a classified income statement for the month ended 2010 May 31.

Alternate problem E

The following data are for Bayer Lamp Company:

Bayer Lamp Company
Trial Balance
2010 December 31

Acct. No.	Account Title	Debits	Credits
100	Cash	$ 228,800	
103	Accounts Receivable	193,200	
105	Merchandise Inventory, 2010 January 1	166,400	
108	Prepaid Insurance	11,600	
130	Land	240,000	
140	Building	440,000	
141	Accumulated Depreciation – Building		$ 132,000
174	Store Fixtures	222,400	
175	Accumulated Depreciation – Store Fixtures		44,480
200	Accounts Payable		151,600
300	Capital Stock		400,000
310	Retained Earnings, 2010 January 1		480,720
410	Sales		2,206,000
411	Sales Discounts	14,800	
412	Sales Returns and Allowances	8,000	
418	Interest Revenue		1,600
500	Purchases	1,251,600	
501	Purchases Discounts		10,400
502	Purchases Returns and Allowances		5,600
503	Transportation-In	29,200	
505	Advertising Expense	48,000	
508	Sales Salaries Expense	256,000	
509	Office Salaries Expense	296,000	
519	Delivery Expense	18,400	
540	Interest Expense	8,000	
		$ 3,432,400	$ 3,432,400

Depreciation expense on the store building is USD 8,800.

- Depreciation expense on the store fixtures is USD 22,240.
- Accrued sales salaries are USD 5,600.
- Insurance expired in 2010 is USD 10,000.
- Cost of merchandise inventory on hand 2010 December 31, is USD 222,000.

Prepare the following:

a. A work sheet for the year ended 2010 December 31. Refer to the chart of accounts shown in a separate file at the end of the text for any other account numbers you need.

b. A classified income statement. The only administrative expenses are office salaries and insurance. The building depreciation is on the store building.

c. A statement of retained earnings.

d. A classified balance sheet.

e. The required closing entries.

7.11.7 Beyond the numbers—Critical thinking

Business decision case A Candy's Shirts, Inc., has an opportunity to purchase 40,000 shirts with the logo of her favorite school in January 2009. Candy, who is not currently in business, is considering buying these shirts and then renting a display cart from which to sell these shirts (called a kiosk) in a shopping mall. Based on the following information and estimates, Candy needs to decide if the business would be profitable:

- Cost of the 40,000 shirts, all of which must be purchased in January 2009, is USD 440,000.
- Candy thinks it would take two years to sell all of the shirts. She estimates her sales at 25,000 shirts in 2009 and 15,000 shirts in 2010.
- Rent of the kiosk would be USD 1,500 per month in 2009 and USD 1,600 per month in 2010.
- Candy can buy some counters on which to display the merchandise for USD 4,000. She could sell the counters for USD 500 at the end of the second year.
- Candy estimates the cost to decorate her kiosk would be USD 2,500.
- Candy would hire employees and pay them USD 1 per shirt sold.
- Candy plans to sell the shirts for USD 17 each.
- Candy and her husband purchased USD 100,000 of capital stock in the business. Therefore, she plans to borrow USD 400,000 from their family banker. Interest expense on this loan will be USD 52,000 in 2009 and USD 6,500 in 2010. Candy plans to repay USD 300,000 on 2010 January 2, and the remaining USD 100,000 on 2010 July 1
- Candy needs to rent some storage space because all 40,000 shirts cannot be stored at the kiosk. Storage space costs USD 2,500 per year.

a. Prepare estimated income statements for 2009 and 2010 for Candy's business. Does it appear that the business will be profitable?

b. Will Candy have the cash available to pay the bank loan as she planned?

Business decision case B In the Annual report appendix, refer to the consolidated statements of earnings for The Limited's most recent three years. Calculate the gross margin percentage and write an explanation of what the results mean for each of the three years.

Annual report analysis C Refer to the consolidated statements of income of The Limited in the Annual report appendix. Identify the 2000, 1999, and 1998 net sales; cost of goods sold; gross profit; selling, administrative, and general expenses; and operating income. Do the results present a favorable trend? Comment on the results.

Ethics case – Writing experience D Based on the ethics case related to World Auto Parts Corporation, respond in writing to the following questions:

a. Do you agree that the total impact of this practice could be as much as USD 10 million?

b. Are the small suppliers probably better off going along with the practice?

c. Is this practice ethical?

Group project E In teams of two or three students, go to the library (or find an annual report at www.sec.gov/edgar.shtml) to locate one merchandising company's annual report for the most recent year. Calculate the company's gross margin percentage for each of the most recent three years. As a team, write a memorandum to the instructor showing your calculations and commenting on the results. The heading of the memorandum should contain the date, to whom it is written, from whom, and the subject matter.

Group project F In a team of two or three students, contact a variety of businesses in your area and inquire as to the types of sales discount terms they offer to credit customers and the types of purchase discount terms they are offered by their suppliers. Calculate the approximate annual rate of interest implied in several of the more common discount terms. For instance, the book states that the implied annual rate of interest on terms of 2/10, n/30 is 36 per cent, assuming we use a 360-day year. Present your findings in a written report to your instructor.

Group project G In a team of two or three students, obtain access to several annual reports of companies in different industries (see www.sec.gov/edgar.shtml.) Examine their income statements

and identify differences in their formats. Discuss these differences within your group and then present your findings in a report to your instructor.

7.11.8 Using the Internet—A view of the real world

Visit the Fat Brains Toys website at:

http://fatbraintoys.com website

Browse around the site for interesting information. What products do they sell? What journal entries would they make to record sales of these products? Write a report to your instructor summarizing your experience at this site.

7.11.9 Answers to self-test

True-false

False. Sales discounts, as well as sales returns and allowances, are deducted from gross sales.

True. Under perpetual inventory procedure, the Merchandise Inventory account is debited for each purchase and credited for each sale.

True. Purchase Discounts and Purchase Returns and Allowances are contra accounts to the Purchases account. The balances of those accounts are deducted from purchases to arrive at net purchases.

False. Consigned goods delivered to another party for attempted sale are included in the ending inventory of the company that sent the goods.

False. An unclassified income statement, not a classified income statement, has only two categories of items.

Multiple-choice

d. Trade discounts are not recorded on the books of either a buyer or a seller. In other words, the invoice price of sales (purchases) is recorded: USD4,000 X0.8 = USD3,200

b. The cost of goods sold is computed as follows:

Beginning inventory	$60,000
Net cost of purchases	240,000
Cost of goods available for sale	$ 300,000
Ending inventory	72,000
Cost of goods sold	$228,000

b. Purchase discounts are based on invoice prices less purchase returns and allowances, if any.

e. All of the sections mentioned in (a-d) appear in a classified income statement. Current assets appear on a classified balance sheet.

b. Merchandise Inventory is debited for the cost of ending inventory.

You may close debit balanced accounts (in the income statement) before credit balanced accounts. This practice does not affect the balance of the Income Summary account or the amount of net income.

8 Measuring and reporting inventories

8.1 Learning objectives

After studying this chapter, you should be able to:

- Explain and calculate the effects of inventory errors on certain financial statement items.
- Indicate which costs are properly included in inventory.
- Calculate cost of ending inventory and cost of goods sold under the four major inventory costing methods using periodic and perpetual inventory procedures.
- Explain the advantages and disadvantages of the four major inventory costing methods.
- Record merchandise transactions under perpetual inventory procedure.
- Apply net realizable value and the lower-of-cost-or-market method of inventory.
- Estimate cost of ending inventory using the gross margin and retail inventory methods.
- Analyze and use the financial results- inventory turnover ratio.

8.2 Choosing an accounting career

Chapter 7 discusses how companies have a choice in inventory cost methods between specific identification, FIFO, LIFO, and weighted-average. Similarly, one of the greatest benefits of obtaining an accounting degree is the broad range of career choices available. There are over 40 different types of accounting jobs available in public accounting, private industry, and governmental accounting. For example, check out the list of accounting jobs at: http://www.uncwil.edu/stuaff/career/Majors/accounting.htm#related careertitles.

One of the primary reasons many students go into accounting is successful job placement. Accounting majors have been better able to find positions than majors in any of the other business options, with the possible exception of management information systems (MIS). Even the relative demand for MIS majors has diminished recently, while the demand for accounting majors remains strong. We are currently experiencing a shortage of accounting majors across the nation. Another important factor to keep in mind regarding job placement is where you would like to be three to five years from now. Accounting offers an excellent foundation with opportunities for advancement, whereby many accounting graduates make double their entry-level salary in only five years.

Many students pursue an accounting degree because it does not restrict their career opportunities as much as having a different business degree. For example, with an accounting degree, a student can

apply for positions in management, marketing, and finance, as well as accounting. In fact, many recruiters in business favor accounting graduates because they recognize an accounting degree as a more difficult business degree to obtain. However, management, marketing, and finance students cannot apply for accounting positions because they lack necessary accounting coursework. In fact, with some additional courses in systems, an accounting major is well equipped to pursue a career in any business field including information systems.

Have you ever taken advantage of a pre-inventory sale at your favorite retail store? Many stores offer bargain prices to reduce the merchandise on hand and to minimize the time and expense of taking the inventory. A smaller inventory also enhances the probability of taking an accurate inventory since the store has less merchandise to count. From Chapter 6 you know that companies use inventory amounts to determine the cost of goods sold; this major expense affects a merchandising company's net income. In this chapter, you learn how important inventories are in preparing an accurate income statement, statement of retained earnings, and balance sheet.

This chapter discusses merchandise inventory carried by merchandising retailers and wholesalers. **Merchandise inventory** is the quantity of goods held by a merchandising company for resale to customers. Merchandising companies determine the quantity of inventory items by a physical count.

The merchandise inventory figure used by accountants depends on the quantity of inventory items and the cost of the items. This chapter discusses four accepted methods of costing the items: (1) specific identification; (2) first-in, first-out (FIFO); (3) last-in, first-out (LIFO); and (4) weighted-average. Each method has advantages and disadvantages.

This chapter stresses the importance of having accurate inventory figures and the serious consequences of using inaccurate inventory figures. When you finish this chapter, you should understand how taking inventory connects with the cost of goods sold figure on the store's income statement, the retained earnings amount on the statement of retained earnings, and both the inventory figure and the retained earnings amount on the store's balance sheet.

8.3 Inventories and cost of goods sold

Inventory is often the largest and most important asset owned by a merchandising business. The inventory of some companies, like car dealerships or jewelry stores, may cost several times more than any other asset the company owns. As an asset, the inventory figure has a direct impact on reporting the solvency of the company in the balance sheet. As a factor in determining cost of goods sold, the inventory figure has a direct impact on the profitability of the company's operations as reported in the income statement. Thus, the importance of the inventory figure should not be underestimated.

8.4 Importance of proper inventory valuation

A merchandising company can prepare accurate income statements, statements of retained earnings, and balance sheets only if its inventory is correctly valued. On the income statement, a company using periodic inventory procedure takes a physical inventory to determine the cost of goods sold. Since the cost of goods sold figure affects the company's net income, it also affects the balance of retained earnings on the statement of retained earnings. On the balance sheet, incorrect inventory amounts affect both the reported ending inventory and retained earnings. Inventories appear on the balance sheet under the heading "Current Assets", which reports current assets in a descending order of liquidity. Because inventories are consumed or converted into cash within a year or one operating cycle, whichever is longer, inventories usually follow cash and receivables on the balance sheet.

Recall that under periodic inventory procedure we determine the cost of goods sold figure by adding the beginning inventory to the net cost of purchases and deducting the ending inventory. In each accounting period, the appropriate expenses must be matched with the revenues of that period to determine the net income. Applied to inventory, matching involves determining (1) how much of the cost of goods available for sale during the period should be deducted from current revenues and (2) how much should be allocated to goods on hand and thus carried forward as an asset (merchandise inventory) in the balance sheet to be matched against future revenues. Because we determine the cost of goods sold by deducting the ending inventory from the cost of goods available for sale, a highly significant relationship exists: Net income for an accounting period depends directly on the valuation of ending inventory. This relationship involves three items:

First, a merchandising company must be sure that it has properly valued its ending inventory. If the ending inventory is overstated, cost of goods sold is understated, resulting in an overstatement of gross margin and net income. Also, overstatement of ending inventory causes current assets, total assets, and retained earnings to be overstated. Thus, any change in the calculation of ending inventory is reflected, dollar for dollar (ignoring any income tax effects), in net income, current assets, total assets, and retained earnings.

Second, when a company misstates its ending inventory in the current year, the company carries forward that misstatement into the next year. This misstatement occurs because the ending inventory amount of the current year is the beginning inventory amount for the next year.

Third, an error in one period's ending inventory automatically causes an error in net income in the opposite direction in the next period. After two years, however, the error washes out, and assets and retained earnings are properly stated.

Exhibit 44 and Exhibit 45 prove that net income for an accounting period depends directly on the valuation of the inventory. Allen Company's income statements and the statements of retained earnings for years 2009 and 2010 show this relationship.

ALLEN COMPANY		
	For Year Ended 2009 December 31	
Income Statement	**Ending Inventory Correctly Stated**	**Ending Inventory Overstated By $5,000**
Sales	$400,000	$400,000
Cost of goods available for sale	$300,000	$300,000
Ending inventory	35,000	40,000
Cost of goods sold	265,000	260,000
Gross margin	$135,000	$140,000
Other expenses	$85,000	85,000
Net income	$ 50,000	$55,000
Statement of Retained Earnings		
Beginning retained earnings	$120,000	$120,000
Net income	50,000	55,000
Ending retained earnings	$170,000	$175,000

Exhibit 44: Effects of an overstated ending inventory

ALLEN COMPANY			
	For Year Ended 2010 December 31		
Income Statement	**Beginning Inventory Correctly Stated**	**Beginning Inventory Overstated By $5,000**	
Sales	$425,000		$425,000
Beginning inventory	$ 35,000	$40,000	
Purchases	290,000	290,000	
Cost of goods available for sale	$325,000	$330,000	
Ending inventory	45,000	45,000	
Cost of goods sold	280,000		285,000
Gross margin	$145,000		$140,000
Other expenses	53,500		53,500
Net income	$ 91,500		$ 86,500
Statement of Retained Earnings			
Beginning retained earnings	$170,000		$175,000
Net income	91,500		86,500
Ending retained earnings	$261,500		$261,500

Exhibit 45: Effects of an overstated beginning inventory

In Exhibit 44 the correctly stated ending inventory for the year 2009 is USD 35,000. As a result, Allen has a gross margin of USD 135,000 and net income of USD 50,000. The statement of retained earnings shows a beginning retained earnings of USD 120,000 and an ending retained earnings of USD 170,000. When the ending inventory is overstated by USD 5,000, as shown on the right in Exhibit 44, the gross margin is USD 140,000, and net income is USD 55,000. The statement of retained earnings

then has an ending retained earnings of USD 175,000. The ending inventory overstatement of USD 5,000 causes a USD 5,000 overstatement of net income and a USD 5,000 overstatement of retained earnings. The balance sheet would show both an overstated inventory and an overstated retained earnings. Due to the error in ending inventory, both the stockholders and creditors may overestimate the profitability of the business.

Exhibit 45 is a continuation of Exhibit 44 and contains Allen's operating results for the year ended 2010 December 31. Note that the ending inventory in Exhibit 44 now becomes the beginning inventory of Exhibit 45. However, Allen's inventory at 2010 December 31, is now an accurate inventory of USD 45,000. As a result, the gross margin in the income statement with the beginning inventory correctly stated is USD 145,000, and Allen Company has net income of USD 91,500 and an ending retained earnings of USD 261,500. In the income statement columns at the right, in which the beginning inventory is overstated by USD 5,000, the gross margin is USD 140,000 and net income is USD 86,500, with the ending retained earnings also at USD 261,500.

Thus, in contrast to an overstated ending inventory, resulting in an overstatement of net income, an overstated beginning inventory results in an understatement of net income. If the beginning inventory is overstated, then cost of goods available for sale and cost of goods sold also are overstated. Consequently, gross margin and net income are understated. Note, however, that when net income in the second year is closed to retained earnings, the retained earnings account is stated at its proper amount. The overstatement of net income in the first year is offset by the understatement of net income in the second year. For the two years combined the net income is correct. At the end of the second year, the balance sheet contains the correct amounts for both inventory and retained earnings. Exhibit 46 summarizes the effects of errors of inventory valuation:

	Ending Inventory		**Beginning Inventory**	
	Understated	**Overstated**	**Understated**	**Overstated**
Cost of good sold	Overstated	Understated	Understated	Overstated
Net income	Understated	Overstated	Overstated	Understated

Exhibit 46: Inventory errors

8.5 Determining inventory cost

To place the proper valuation on inventory, a business must answer the question: Which costs should be included in inventory cost? Then, when the business purchases identical goods at different

costs, it must answer the question: Which cost should be assigned to the items sold? In this section, you learn how accountants answer these questions.

The costs included in inventory depend on two variables: quantity and price. To arrive at a current inventory figure, companies must begin with an accurate physical count of inventory items. They multiply the quantity of inventory by the unit cost to compute the cost of ending inventory. This section discusses the taking of a physical inventory and the methods of costing the physical inventory under both perpetual and periodic inventory procedures. The remainder of the chapter discusses departures from the cost basis of inventory measurement.

As briefly described in Chapter 6, to take a physical inventory, a company must count, weigh, measure, or estimate the physical quantities of the goods on hand. For example, a clothing store may count its suits; a hardware store may weigh bolts, washers, and nails; a gasoline company may measure gasoline in storage tanks; and a lumberyard may estimate quantities of lumber, coal, or other bulky materials. Throughout the taking of a physical inventory, the goal should be accuracy.

Taking a physical inventory may disrupt the normal operations of a business. Thus, the count should be administered as quickly and as efficiently as possible. The actual taking of the inventory is not an accounting function; however, accountants often plan and coordinate the count. Proper forms are required to record accurate counts and determine totals. Identification names or symbols must be chosen, and those persons who count, weigh, or measure the inventory items must know these symbols.

Inventory Tag

JMA Corp.

Inventory Tag No. **281** Date

Description

Location

Quantity Counted

Counted by

Checked by

Duplicate Inventory Tag

Inventory Tag No. **281** Date

Description

Location

Quantity Counted

Counted by

Checked by

Exhibit 47: Inventory tag

Taking a physical inventory often involves using inventory tags, such as that in Exhibit 47. These tags are consecutively numbered for control purposes. A tag usually consists of a stub and a detachable duplicate section. The duplicate section facilitates checking discrepancies. The format of the tags can vary. However, the tag usually provides space for (1) a detailed description and identification of inventory items by product, class, and model; (2) location of items; (3) quantity of items on hand; and (4) initials of the counters and checkers.

The descriptive information and count may be entered on one copy of the tag by one team of counters. Another team of counters may record its count on the duplicate copy of the tag. Discrepancies between counts of the same items by different teams are reconciled by supervisors, and the correct counts are assembled on intermediate inventory sheets. Only when the inventory counts are completed and checked does management send the final sheets to the accounting department for pricing and extensions (quantity X price). The tabulated result is the dollar amount of the physical inventory. Later in the chapter we explain the different methods accountants use to cost inventory.

Usually, inventory cost includes all the necessary outlays to obtain the goods, get the goods ready to sell, and have the goods in the desired location for sale to customers. Thus, inventory cost includes:

- Seller's invoice price less any purchase discount.
- Cost of the buyer's insurance to cover the goods while in transit.
- Transportation charges when borne by the buyer.
- Handling costs, such as the cost of pressing clothes wrinkled during shipment.

In theory, the cost of each unit of inventory should include its net invoice price plus its share of other costs incurred in shipment. The 1986 Tax Reform Act requires companies to assign these costs to inventory for tax purposes. For accounting purposes, these cost assignments are recommended but not required.

Practical difficulties arise in allocating some of these costs to inventory items. Assume, for example, that the freight bill on a shipment of clothes does not separate out the cost of shipping one shirt. Also, assume that the company wants to include the freight cost as part of the inventory cost of the shirt. Then, the freight cost would have to be allocated to each unit because it cannot be measured directly. In practice, allocations of freight, insurance, and handling costs to the individual units of inventory purchased are often not worth the additional cost. Consequently, in the past many companies have not assigned the costs of freight, insurance, and handling to inventory. Instead, they have expensed these costs as incurred. When companies omit these costs from both beginning and ending inventories, they

minimize the effect of expensing these costs on net income. The required allocation for tax purposes has probably resulted in many companies using the same inventory amounts in their financial statements.

Even if a company derives a cost for each unit in inventory, the inventory valuation problem is not solved. Management must consider two other aspects of the problem:

- If goods were purchased at varying unit costs, how should the cost of goods available for sale be allocated between the units sold and those that remain in inventory? For example, assume Hi-Fi Buys, Inc., purchased two identical DVD players for resale. One cost USD 250 and the other, USD 200. If one was sold during the period, should Hi-Fi Buys assign it a cost of USD 250, USD 200, or an average cost of USD 225?
- Does the fact that current replacement costs are less than the costs of some units in inventory have any bearing on the amount at which inventory should be carried? Using the same example, if Hi-Fi Buys can currently buy all DVD players for USD 200, is it reasonable to carry some units in inventory at USD 250 rather than USD 200?

We answer these questions in the next section.

Generally companies should account for inventories at historical cost; that is, the cost at which the items were purchased. However, this rule does not indicate how to assign costs to ending inventory and to cost of goods sold when the goods have been purchased at different unit costs. For example, suppose a retailer has three shirts on hand. One costs USD 20; another, USD 22; and a third, USD 24. If the retailer sells two shirts for USD 30 each, what is the cost of the two shirts sold?

Accountants developed these four inventory costing methods to solve costing problems: (1) specific identification; (2) first-in, first-out (FIFO); (3) last-in, first-out (LIFO); and (4) weighted-average. Before explaining the inventory costing methods, we briefly introduce perpetual inventory procedure and compare periodic and perpetual inventory procedures.

In Chapter 6, the emphasis was on periodic inventory procedure. Under periodic inventory procedure, firms debit the Purchases account when goods are acquired; they use other accounts, such as Purchase Discounts, Purchase Returns and Allowances, and Transportation-In, for purchase-related transactions. Companies determine cost of goods sold only at the end of the period as the difference between cost of goods available for sale and ending inventory. They keep no records of the cost of items as they are sold, and have no information on possible inventory shortages. They assume any goods not in ending inventory have been sold.

Item	TV-96874	Maximum	26
Location		Minimum	6

		Purchased			Sold			Balance	
2008 Date	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**
Beg. inv.							8	$300	$2,400
July 5	10	$300	$3,000				18	300	5,400
7				12	$300	$3,600	6	300	1,800
12	10	315	3,150				6	300	1,800
22				6	300	1,800	10	315	3,150
				2	315	630			
24	8	320	2,560				8	315 315	2,520 2,520
							8	320	2,560

Exhibit 48: Perpetual inventory record (FIFO method)

The availability of inventory management software packages is causing more and more businesses to change from periodic to perpetual inventory procedure. Under perpetual inventory procedure, companies have no Purchases and purchase-related accounts. Instead, they make all entries involving merchandise purchased for sale to customers directly in the Merchandise Inventory account. Thus, they debit or credit Merchandise Inventory in place of debiting or crediting Purchases, Purchase Discounts, Purchase Returns and Allowances, and Transportation-In. At the time of each sale, firms make two entries: the first debits Accounts Receivable or Cash and credits Sales at the retail selling price. The second debits Cost of Goods Sold and credits Merchandise Inventory at cost. Therefore, at the end of the period the Merchandise Inventory account shows the cost of the inventory that should be on hand. Comparison of this amount with the cost obtained by taking and pricing a physical inventory may reveal inventory shortages. Thus, perpetual inventory procedure is an important element in providing internal control over goods in inventory.

Perpetual inventory records Even though companies could apply perpetual inventory procedure manually, tracking units and dollars in and out of inventory is much easier using a computer. Both manual and computer processing maintain a record for each item in inventory. Look at Exhibit 48, an inventory record for Entertainment World, a firm that sells many different brands of television sets. This inventory record shows the information on one particular brand and model of television set carried in inventory. Other information on the record includes (1) the maximum and

minimum number of units the company wishes to stock at any time, (2) when and how many units were acquired and at what cost, and (3) when and how many units were sold and what cost was assigned to cost of goods sold. The number of units on hand and their cost are readily available also. Entertainment World assumes that the first units acquired are the first units sold. This assumption is the first-in, first-out (FIFO) method of inventory costing; we will discuss it later.

An accounting perspective: Uses of technology

Keeping track of inventories under a perpetual inventory system is much more cost-effective with computers. Under a manual system, the cost of an up-to-date inventory for stores with high turnover would outweigh the benefit. Most retail stores use scanning devices to read the inventory numbers of products purchased at the cash register. These bar codes not only provide accurate sales prices but also record the merchandise sold so that the total cost of the store's inventory is up to date.

The following comparison reveals several differences between accounting for inventories under periodic and perpetual procedures. We explain these differences by using data from Exhibit 48 and making additional assumptions. Later, we discuss other journal entries under perpetual inventory procedure.

These entries record the purchase on July 5 under each of the methods:

Periodic Procedure			**Perpetual Procedure**		
Purchases (+A)	3,000		Merchandise Inventory (+A)	3,000	
Accounts Payable (+L)		3,000	Accounts Payable (+L)		3,000

Assuming the merchandise sold on July 7 was priced at USD 4,800, these entries record the sale:

Periodic Procedure			**Perpetual Procedure**		
Accounts Receivable (+A)	4,800		Accounts Receivable (+A)	4,800	
Sales (+SE)		4,800	Sales (+SE)		4,800
			Cost of Goods Sold (-SE)	3,600	
			Merchandise Inventory(-A)		3,600

Several other transactions not included in Exhibit 48 could occur:

- Assume that two of the units purchased on July 5 were returned to the supplier because they were defective. The entries would be:

Periodic Procedure			Perpetual Procedure		
Accounts Payable	600		Accounts Payable	600	
Purchase Returns and Allowances		600	Merchandise Inventory		600

- Assume that the supplier instead granted an allowance of USD 600 to the company because of the defective merchandise. The entries would be:

Periodic Procedure			Perpetual Procedure		
Accounts Payable (-L)	600		Accounts Payable (-L)	600	
Purchase Returns and Allowances (-A)		600	Merchandise Inventory (-A)		600

- Assume that the company incurred and paid freight charges of USD 100 on the purchase of July 5. The entries would be:

Periodic Procedure			Perpetual Procedure		
Transportation-In (+A)	100		Merchandise Inventory (+A)	100	
Cash (-A)		100	Cash (-A)		100

In these entries, notice that under perpetual inventory procedure the Merchandise Inventory account records purchases, purchase returns and allowances, purchase discounts, and transportation-in. Also, when goods are sold, the seller debits (increases) Cost of Goods Sold and credits or reduces Merchandise Inventory.

At the end of the accounting period, under perpetual inventory procedure, the only merchandise-related expense account to be closed is Cost of Goods Sold. The Purchases, Purchase Returns and Allowances, Purchase Discounts, and Transportation-In accounts do not even exist.

Beginning Inventory and Purchases				Sales			
		Unit	Total				
Date	**Units**	**Cost**	**Cost**	**Date**	**Units**	**Price**	**Total**
Beginning inventory	10	$8.00	$ 80	March 10	10	$12.00	$120
March 2	10	8.50	85	July 14	20	12.00	240
May 28	20	8.40	168	September 7	10	14.00	140
August 12	10	9.00	90	November 22	20	14.00	280
October 12	20	8.80	176				
December 21	10	9.10	91				
	80		$690		60		$780

Ending inventory = 20 units, determined By taking a physical inventory.

Exhibit 49: Beginning inventory, purchases and sales

An accounting perspective: Business insight

When you buy a box of breakfast cereal at the supermarket, the cashier scans the bar code on the box. The name of the item and the price appear on a video display that you can see. The information is also printed on the sales slip so that you can later compare the items paid for with the items received. But this is not the end of the story. The information is also fed to the store's computer to update the inventory records. The information is included with other information and is used to order more merchandise from the warehouse so the items can be replenished in the store. At a certain point, the company also uses the reduced inventory levels to order more merchandise from suppliers, such as wholesalers that supply the region with breakfast cereals and other goods. The paperwork for the purchase and payment are often handled electronically through a process called electronic data interchange (EDI) and electronic funds transfer (EFT).

Using the data for purchases, sales, and beginning inventory in Exhibit 49, next we explain the four inventory costing methods. Except for the specific identification method, we first present all of the methods using periodic inventory procedure and then present all of the methods using perpetual inventory procedure. Total goods available for sale consist of 80 units with a total cost of USD 690. A physical inventory determined that 20 units are on hand at the end of the period. Sales revenue for the

60 units sold was USD 780. The questions to be answered are: What is the cost of the 20 units in inventory? What is the cost of the 60 units sold?

Specific identification The **specific identification method** of inventory costing attaches the actual cost to an identifiable unit of product. Firms find this method easy to apply when purchasing and selling large inventory items such as autos. Under the specific identification method, the firm must identify each unit in inventory, unless it is unique, with a serial number or identification tag.

To illustrate, assume that the company in Exhibit 49 can identify the 20 units on hand at year-end as 10 units from the August 12 purchase and 10 units from the December 21 purchase. The company computes the ending inventory as shown in Exhibit 50; it subtracts the USD 181 ending inventory cost from the USD 690 cost of goods available for sale to obtain the USD 509 cost of goods sold. Note that you can also determine the cost of goods sold for the year by recording the cost of each unit sold. The USD 509 cost of goods sold is an expense on the income statement, and the USD 181 ending inventory is a current asset on the balance sheet.

The specific identification costing method attaches cost to an identifiable unit of inventory. The method does not involve any assumptions about the flow of the costs as in the other inventory costing methods. Conceptually, the method matches the cost to the physical flow of the inventory and eliminates the emphasis on the timing of the cost determination. Therefore, periodic and perpetual inventory procedures produce the same results for the specific identification method.

	Units	**Unit Cost**	**Total Cost**
Ending inventory composed of purchases made on:			
August 12	10	$ 9.00	$ 90
December 21	10	9.10	91
Ending inventory	20		$181
Cost of goods sold composed of:			
Beginning inventory	10	8.00	$ 80
Purchases made on:			
March 2	10	8.50	85
May 28	20	8.40	168
October 12	20	8.80	176
			$509
Cost of goods available for sale			$690
Ending inventory			181
Cost of goods sold			$509

Exhibit 50: Determining ending inventory under specific identification

FIFO (first-in, first-out) under periodic inventory procedure The **FIFO (first-in, first-out)** method of inventory costing assumes that the costs of the first goods purchased are those charged

to cost of goods sold when the company actually sells goods. This method assumes the first goods purchased are the first goods sold. In some companies, the first units in (bought) must be the first units out (sold) to avoid large losses from spoilage. Such items as fresh dairy products, fruits, and vegetables should be sold on a FIFO basis. In these cases, an assumed first-in, first-out flow corresponds with the actual physical flow of goods.

Because a company using FIFO assumes the older units are sold first and the newer units are still on hand, the ending inventory consists of the most recent purchases. When using periodic inventory procedure, to determine the cost of the ending inventory at the end of the period under FIFO, you would begin by listing the cost of the most recent purchase. If the ending inventory contains more units than acquired in the most recent purchase, it also includes units from the next-to-the-latest purchase at the unit cost incurred, and so on. You would list these units from the latest purchases until that number agrees with the units in the ending inventory.

In Exhibit 51, you can see how to determine the cost of ending inventory under FIFO using periodic inventory procedure. The company assumes that the 20 units in inventory consist of 10 units purchased December 21 and 10 units purchased October 12. The total cost of ending inventory is USD 179, and the cost of goods sold is USD 511.

We show the relationship between the cost of goods sold and the cost of ending inventory under FIFO using periodic inventory procedure in Exhibit 52. The 80 units in cost of goods available for sale consists of the beginning inventory and all of the purchases during the period. Under FIFO, the ending inventory of 20 units consists of the most recent purchases—10 units of the December 21 purchase and 10 units of the October 12 purchase—costing USD 179. We assume the beginning inventory and other earlier purchases have been sold during the period, representing the cost of goods sold of USD 511.

	Units	Unit Cost	Total Cost	
Ending inventory composed of purchases made on:				
December 21	10	$9.10	$ 91	
October 12	10	8.80	88	
Ending inventory	20		$179	
Cost of goods sold composed of:				
Beginning inventory	10	8.00	$ 80	
Purchases made on:				
March 2	10	8.50	85	
May 28	20	8.40	168	
August 12	10	9.00	90	
October 12	10	8.80	88	
			$511	
Cost of goods available for sale				$690
Ending inventory				179
Cost of goods sold				$511

Exhibit 51: Determining FIFO cost of ending inventory under periodic inventory procedure

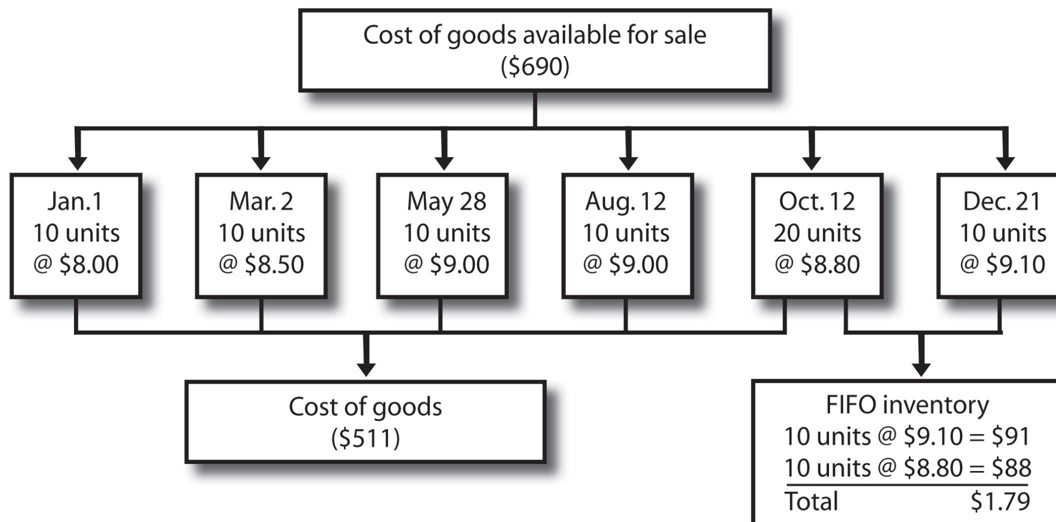


Exhibit 52: FIFO flow of costs

LIFO (last-in, first-out) under periodic inventory procedure The **LIFO (last-in, first-out)** method of inventory costing assumes that the costs of the most recent purchases are the first costs charged to cost of goods sold when the company actually sells the goods.

In Exhibit 53, we show the use of LIFO under periodic inventory procedure. Since the company charges the latest costs to cost of goods sold under periodic inventory procedure, the ending inventory always consists of the oldest costs. Therefore, when determining the cost of inventory under periodic

inventory procedure, the company lists the oldest units and their costs. The first units listed are those in beginning inventory, then the first purchase, and so on, until the number listed agrees with the units in ending inventory. Thus, ending inventory in Exhibit 53 consists of the 10 units from beginning inventory and the 10 units purchased on March 2. The total cost of these 20 units, USD 165, is the ending inventory cost; the cost of goods sold is USD 525. Exhibit 54 is a graphic representation of the LIFO flow of costs under periodic inventory procedure.

	Units	**Unit Cost**	**Total Cost**
Ending inventory composed of:			
Beginning inventory	10	$8.00	$ 80
March 2 purchase	10	8.50	85
Ending inventory	20		$165
Cost of goods sold composed of purchases made on:			
December 21	10	9.10	$ 91
October 12	20	8.80	176
August 12	10	9.00	90
May 28	20	8.40	168
			$525
Cost of goods available for sale			$690
Ending inventory			165
Cost of goods sold			$525

Exhibit 53: Determining LIFO cost of ending inventory under periodic inventory procedure

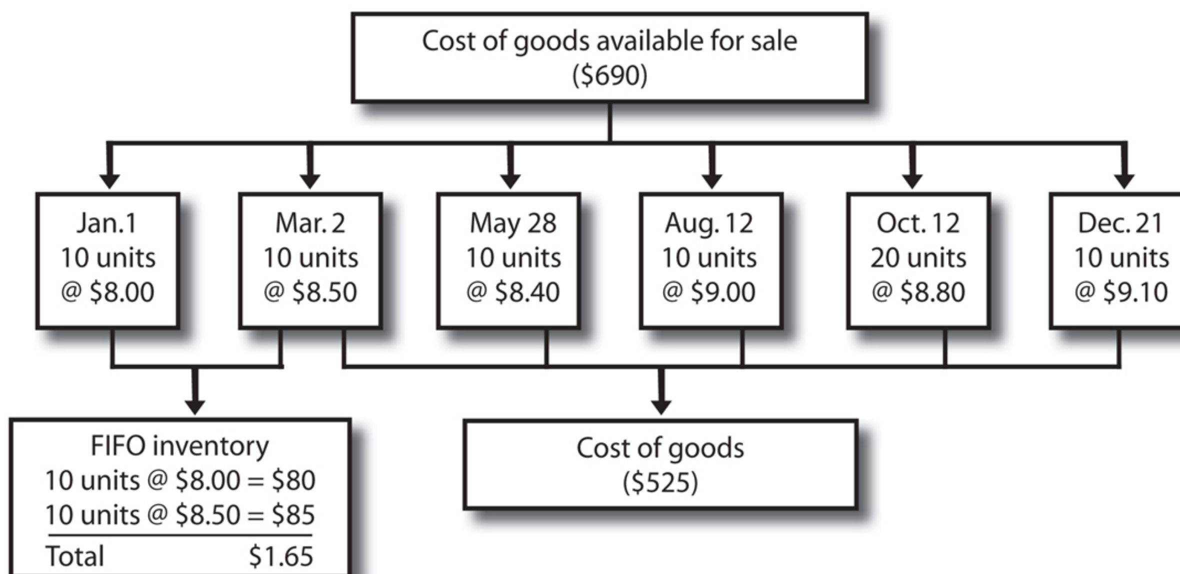


Exhibit 54: LIFO flow of costs under periodic inventory procedure

Weighted-average under periodic inventory procedure The **weighted-average method** of inventory costing is a means of costing ending inventory using a weighted-average unit cost. Companies most often use the weighted-average method to determine a cost for units that are basically the same, such as identical games in a toy store or identical electrical tools in a hardware store. Since the units are alike, firms can assign the same unit cost to them.

Under periodic inventory procedure, a company determines the average cost at the end of the accounting period by dividing the total units purchased plus those in beginning inventory into total cost of goods available for sale. The ending inventory is carried at this per unit cost. To see how a company uses the weighted-average method to determine inventory costs using periodic inventory procedure, look at Exhibit 55. Note that we compute weighted-average cost per unit by dividing the cost of units available for sale, USD 690, by the total number of units available for sale, 80. Thus, the weighted-average cost per unit is USD 8.625, meaning that each unit sold or remaining in inventory is valued at USD 8.625.

	Units	**Unit Cost**	**Total Cost**
Beginning inventory	10	$8.00	$ 80.00
Purchases			
March 2	10	8.50	85.00
May 28	20	8.40	168.00
August 12	10	9.00	90.00
October 12	20	8.80	176.00
December 21	10	9.10	91.00
Total	80		$690.00
Weighted-average unit cost is $690 / 80, or $8.625			
Ending inventory then is $8.625 x 20			172.50
Cost of goods sold: $8.625 x 60			$517.50

Exhibit 55: Determining ending inventory under weighted-average method using periodic inventory procedure

	Purchased			Sold			Balance		
		Unit Total		Unit	Total		Unit	Total	
Date	Units	Cost Cost	Units	Cost	Cost	Units	Cost	Cost	
Beg. inv.						10	$8.00	80	
Mar. 2	10	$8.50 $85				10(A)	8.00	80	
						10	8.50	85	
Mar. 10			10	$8.00	(A)$80	10	8.50	85	
May 28	20	8.40 168				10(B)	8.50	85	Sales are assumed to be from the oldest units on hand
						20(C)	8.40	168	
July 14			10	8.50	(B)85				
			10	8.40	(C)85	10	8.40	84	
Aug. 12	10	9.00 90				10(D)	8.40	84	
						10	9.00	90	
Sept. 7			10	8.40	(D)84	10	9.00	90	
Oct. 12	20	8.80 176				10(E)	9.00	90	
						20(F)	8.80	176	
Nov. 22			10	9.00	(E)90				
			10	8.80	(F)88	10	8.80	88	
Dec 21	10	9.10 91				10	8.80	88	Total of $179 would agree with balance already existing in Merchandise Inventory account.
						10	9.10	91	
				Total cost of ending inventory =				$179	

Exhibit 56: Determining FIFO cost of ending inventory under perpetual inventory procedure

FIFO under perpetual inventory procedure Under perpetual inventory procedure, the ending balance in the Merchandise Inventory account reflects the most recent purchases as a result of making the required entries during the period. Also, the firm has already recorded the cost of goods sold in the Cost of Goods Sold account. Exhibit 56 shows how to determine the cost of ending inventory under FIFO using perpetual inventory procedure. This illustration uses the same format as the earlier perpetual inventory record in Exhibit 48. The company keeps a record of the balance in the inventory account as it makes purchases and sells items from inventory.

	Purchased			Sold			Balance			
Date	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**	
Beg. inv.								$8.00	80	
Mar. 2	10	$8.50	$85				10 10	8.00 8.50	80 85	
Mar. 10				10	$8.50	85	10	8.00	80	
May 28	20	8.40	168				10 20	8.00 8.40	80 168	Sales are assumed to be from most recent purchases
July 14				20	8.40	168	10	8.00	80	
Aug.12	10	9.00	90				10 10	8.00 9.00	80 90	
Sept. 7				10	9.00	90	10	8.00	80	
Oct. 12	20	8.80	176				10 20	8.00 8.80	80 176	
Nov. 22				20	8.80	176	10	8.00	80	
Dec. 21	10	9.10	91				10 10	8.00 9.10	80 91	Total of $171 would agree with balance already existing in Merchandise Inventory account.
					Total cost of ending inventory =				$171	

Exhibit 57: Determining LIFO cost of ending inventory under perpetual inventory procedure

Notice in Exhibit 56 that each time a sale occurs, the company assumes the items sold are the oldest on hand. Thus, after each transaction, it can readily determine the balance in the Merchandise Inventory account from the perpetual inventory record. The balance after the December 21 purchase represents the 20 units from the most recent purchases. The total cost of ending inventory is USD 179, which the company reports as a current asset on the balance sheet. During the accounting period, as sales occurred the firm would have debited a total of USD 511 to Cost of Goods Sold. Adding this USD 511 to the ending inventory of USD 179 accounts for the USD 690 cost of goods available for sale. Under FIFO, using either perpetual or periodic inventory procedures results in the same total amounts for ending inventory and for cost of goods sold.

LIFO under perpetual inventory procedure Look at Exhibit 57 to see the LIFO method using perpetual inventory procedure. Under this procedure, the inventory composition and balance are updated with each purchase and sale. Notice in Exhibit 57 that each time a sale occurs, the items sold are assumed to be the most recent ones acquired. Despite numerous purchases and sales during the

year, the ending inventory still includes the 10 units from beginning inventory in our example. The remainder of the ending inventory consists of the last purchase because no sale occurred after the December 21 purchase. The total cost of the 20 units in ending inventory is USD 171; the cost of goods sold is USD 519. Exhibit 58 shows graphically the LIFO flow of costs under perpetual inventory procedure.

Applying LIFO on a perpetual basis during the accounting period, as shown in Exhibit 57, results in different ending inventory and cost of goods sold figures than applying LIFO only at year-end using periodic inventory procedure. (Compare Exhibit 57 and Exhibit 53 to verify that ending inventory and cost of goods sold are different under the two procedures.) For this reason, if LIFO is applied on a perpetual basis during the period, special adjustments are sometimes necessary at year-end to take full advantage of using LIFO for tax purposes. Complicated applications of LIFO perpetual inventory procedures that require such adjustments are beyond the scope of this text.

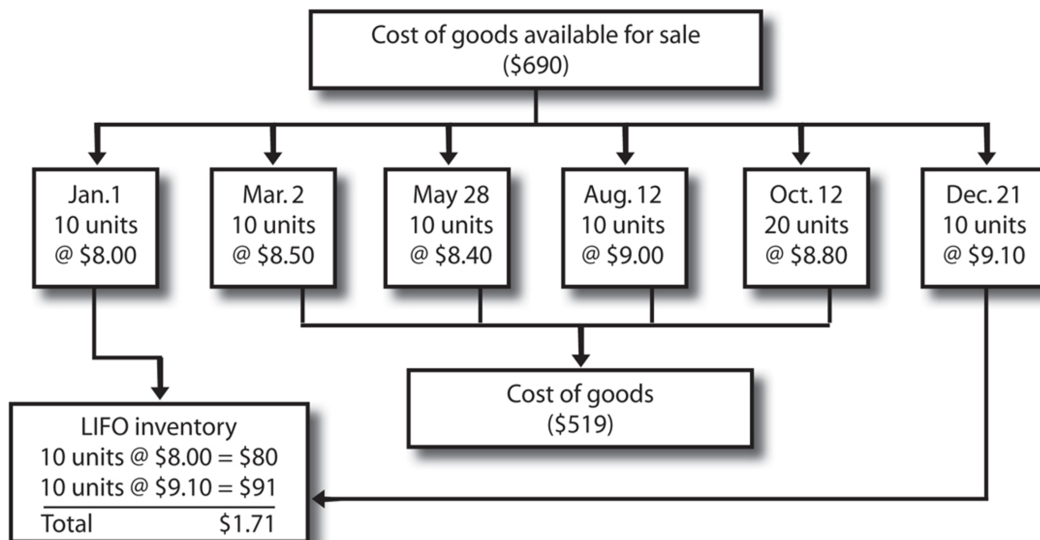


Exhibit 58: LIFO flow of costs under perpetual inventory procedure

	Purchased			Sold			Balance		
Date	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**
Beg. inv.							10	$8.00	80.00
Mar. 2	10	$8.50	$85				20	8.25[a,A]	165.00
Mar. 10				10	$8.25 [B]	$82.50	10	8.25	82.80
May 28	20	8.40	168				30	8.35[b]	250.50
July 14				20	8.35	167.00	10	8.35	83.50
Aug. 12	10	9.00	90				20	8.675[c]	173.50
Sept. 7				10	8.675	86.75	10	8.675	86.75
Oct. 12	20	8.80	176				30	8.758 [c]	262.75
Nov. 22					8.758	175.17	10	8.758	87.58
Dec 21	10	9.10	91				20	$8.929[e]	$178.58[C]

[a]$165.00/20 = $8.25. [b]$250.50/30 = $8.35. [c]$173.50/20 = $8.675. [d]$262.75/30 = $8.758. [e]$175.58/20 = $8.929 * rounding difference.

[A] A new unit cost is calculated after each purchase. [B]The unit cost of sales is the most recently calculated cost. [C] Balance of $178.58 would agree with balance already existing in the Merchandise Inventory account.

Exhibit 59: Determining ending inventory under weighted-average method using perpetual inventory procedure

Look at Exhibit 58 and Exhibit 54, the flow of inventory costs under LIFO using both the perpetual and periodic inventory procedures. Note that ending inventory and cost of goods sold are different under the two procedures.

Weighted-average under perpetual inventory procedure Under perpetual inventory procedure, firms compute a new weighted-average unit cost after each purchase by dividing total cost of goods available for sale by total units available for sale. The unit cost is a moving weighted-average because it changes after each purchase. In Exhibit 59, you can see how to compute the moving weighted-average using perpetual inventory procedure. The new weighted-average unit cost computed after each purchase is the unit cost for inventory items sold until a new purchase is made. The unit cost of the 20 units in ending inventory is USD 8.929 for a total inventory cost of USD 178.58. Cost of goods sold under this procedure is USD 690 minus the USD 178.58, or USD 511.42.

Advantages and disadvantages of specific identification Companies that use the specific identification method of inventory costing state their cost of goods sold and ending inventory at the actual cost of specific units sold and on hand. Some accountants argue that this method provides the most precise matching of costs and revenues and is, therefore, the most theoretically sound method. This statement is true for some one-of-a-kind items, such as autos or real estate. For these items, use of any other method would seem illogical.

One disadvantage of the specific identification method is that it permits the manipulation of income. For example, assume that a company bought three identical units of a given product at different prices. One unit cost USD 2,000, the second cost USD 2,100, and the third cost USD 2,200. The company sold one unit for USD 2,800. The units are alike, so the customer does not care which of the identical units the company ships. However, the gross margin on the sale could be either USD 800, USD 700, or USD 600, depending on which unit the company ships.

Advantages and disadvantages of FIFO The FIFO method has four major advantages: (1) it is easy to apply, (2) the assumed flow of costs corresponds with the normal physical flow of goods, (3) no manipulation of income is possible, and (4) the balance sheet amount for inventory is likely to approximate the current market value. All the advantages of FIFO occur because when a company sells goods, the first costs it removes from inventory are the oldest unit costs. A company cannot manipulate income by choosing which unit to ship because the cost of a unit sold is not determined by a serial number. Instead, the cost attached to the unit sold is always the oldest cost. Under FIFO, purchases at the end of the period have no effect on cost of goods sold or net income.

The disadvantages of FIFO include (1) the recognition of paper profits and (2) a heavier tax burden if used for tax purposes in periods of inflation. We discuss these disadvantages later as advantages of LIFO.

Advantages and disadvantages of LIFO The advantages of the LIFO method are based on the fact that prices have risen almost constantly for decades. LIFO supporters claim this upward trend in prices leads to inventory, or paper, profits if the FIFO method is used. **Inventory, or paper, profits** are equal to the current replacement cost of a unit of inventory at the time of sale minus the unit's historical cost.

For example, assume a company has three units of a product on hand, each purchased at a different cost: USD 12, USD 15, and USD 20 (the most recent cost). The sales price of the unit normally rises because the unit's replacement cost is rising. Assume that the company sells one unit for USD 30. FIFO gross margin would be USD 18 (USD 30 – USD 12), while LIFO would show a gross margin of USD 10 (USD 30 – USD 20). LIFO supporters would say that the extra USD 8 gross margin shown under FIFO

represents inventory (paper) profit; it is merely the additional amount that the company must spend over cost of goods sold to purchase another unit of inventory (USD 8 + USD 12 = USD 20). Thus, the profit is not real; it exists only on paper. The company cannot distribute the USD 8 to owners, but must retain it to continue handling that particular product. LIFO shows the actual profits that the company can distribute to the owners while still replenishing inventory.

During periods of inflation, LIFO shows the largest cost of goods sold of any of the costing methods because the newest costs charged to cost of goods sold are also the highest costs. The larger the cost of goods sold, the smaller the net income.

Those who favor LIFO argue that its use leads to a better matching of costs and revenues than the other methods. When a company uses LIFO, the income statement reports both sales revenue and cost of goods sold in current dollars. The resulting gross margin is a better indicator of management's ability to generate income than gross margin computed using FIFO, which may include substantial inventory (paper) profits.

Supporters of FIFO argue that LIFO (1) matches the cost of goods not sold against revenues, (2) grossly understates inventory, and (3) permits income manipulation.

The first criticism—that LIFO matches the cost of goods not sold against revenues—is an extension of the debate over whether the assumed flow of costs should agree with the physical flow of goods. LIFO supporters contend that it makes more sense to match current costs against current revenues than to worry about matching costs for the physical flow of goods.

The second criticism—that LIFO grossly understates inventory—is valid. A company may report LIFO inventory at a fraction of its current replacement cost, especially if the historical costs are from several decades ago. LIFO supporters contend that the increased usefulness of the income statement more than offsets the negative effect of this undervaluation of inventory on the balance sheet.

The third criticism—that LIFO permits income manipulation—is also valid. Income manipulation is possible under LIFO. For example, assume that management wishes to reduce income. The company could purchase an abnormal amount of goods at current high prices near the end of the current period, with the purpose of selling the goods in the next period. Under LIFO, these higher costs are charged to cost of goods sold in the current period, resulting in a substantial decline in reported net income. To obtain higher income, management could delay making the normal amount of purchases until the next period and thus include some of the older, lower costs in cost of goods sold.

Tax benefit of LIFO The LIFO method results in the lowest taxable income, and thus the lowest income taxes, when prices are rising. The Internal Revenue Service allows companies to use LIFO for tax purposes only if they use LIFO for financial reporting purposes. Companies may also report an

alternative inventory amount in the notes to their financial statements for comparison purposes. Because of high inflation during the 1970s, many companies switched from FIFO to LIFO for tax advantages.

Advantages and disadvantages of weighted-average When a company uses the weighted-average method and prices are rising, its cost of goods sold is less than that obtained under LIFO, but more than that obtained under FIFO. Inventory is not as badly understated as under LIFO, but it is not as up-to-date as under FIFO. Weighted-average costing takes a middle-of-the-road approach. A company can manipulate income under the weighted-average costing method by buying or failing to buy goods near year-end. However, the averaging process reduces the effects of buying or not buying.

The four inventory costing methods, specific identification, FIFO, LIFO, and weighted-average, involve assumptions about how costs flow through a business. In some instances, assumed cost flows may correspond with the actual physical flow of goods. For example, fresh meats and dairy products must flow in a FIFO manner to avoid spoilage losses. In contrast, firms use coal stacked in a pile in a LIFO manner because the newest units purchased are unloaded on top of the pile and sold first. Gasoline held in a tank is a good example of an inventory that has an average physical flow. As the tank is refilled, the new gasoline mixes with the old. Thus, any amount used is a blend of the old gas with the new.

Although physical flows are sometimes cited as support for an inventory method, accountants now recognize that an inventory method's assumed cost flows need not necessarily correspond with the actual physical flow of the goods. In fact, good reasons exist for simply ignoring physical flows and choosing an inventory method based on other criteria.

In Exhibit 60 and Exhibit 61, we use data from Exhibit 49 to show the cost of goods sold, inventory cost, and gross margin for each of the four basic costing methods using perpetual and periodic inventory procedures. The differences for the four methods occur because the company paid different prices for goods purchased. No differences would occur if purchase prices were constant. Since a company's purchase prices are seldom constant, inventory costing method affects cost of goods sold, inventory cost, gross margin, and net income. Therefore, companies must disclose on their financial statements which inventory costing methods were used.

Which is the correct method? All four methods of inventory costing are acceptable; no single method is the only correct method. Different methods are attractive under different conditions.

If a company wants to match sales revenue with current cost of goods sold, it would use LIFO. If a company seeks to reduce its income taxes in a period of rising prices, it would also use LIFO. On the

other hand, LIFO often charges against revenues the cost of goods not actually sold. Also, LIFO may allow the company to manipulate net income by changing the timing of additional purchases.

The FIFO and specific identification methods result in a more precise matching of historical cost with revenue. However, FIFO can give rise to paper profits, while specific identification can give rise to income manipulation. The weighted-average method also allows manipulation of income. Only under FIFO is the manipulation of net income not possible.

An accounting perspective: Business insight

Management decides which inventory costing method or methods (LIFO, FIFO, etc.) to use. Also, management must determine which method is the most meaningful and useful in representing economic results. Then, it must use the selected method consistently.

The principal business of Kellwood Company is the marketing, merchandising, and manufacturing of apparel, primarily for women. Note in the following footnote from Kellwood's financial statements that it, like other companies, uses several costing methods within the same enterprise:

"Summary of significant accounting policies

3. Inventories and revenue recognition

Inventories are stated at the lower of cost or market. The first-in, first-out (FIFO) method is used to determine the value of 46 per cent of the domestic inventories, and the last-in, first-out (LIFO) method is used to value the remaining domestic inventories. Inventories of foreign subsidiaries are valued using the specific identification method. Sales are recognized when goods are shipped."

Generally, companies use the inventory method that best fits their individual circumstances. However, this freedom of choice does not include changing inventory methods every year or so, especially if the goal is to report higher income. Continuous switching of methods violates the accounting principle of consistency, which requires using the same accounting methods from period to period in preparing financial statements. Consistency of methods in preparing financial statements enables financial statement users to compare statements of a company from period to period and determine trends.

	Specific Identification	FIFO	LIFO	Weighted-Average
Sales	$780.00	$780.00	$780.00	$780.00
Cost of goods sold:				
Beginning inventory	$ 80.00	$ 80.00	$ 80.00	$ 80.00
Purchases	610.00	610.00	610.00	610.00
Cost of goods available for sale	$690.00	$690.00	$690.00	$690.00
Ending inventory	181.00	179.00	171.00	178.58
Cost of goods sold	$509.00	$511.00	$519.00	$511.42
Gross Margin	$271.00	$269.00	$261.00	$268.58

Exhibit 60: Effects of different inventory costing methods using perpetual inventory procedure

	Specific Identification	FIFO	LIFO	Weighted-Average
Sales	$780.00	$780.00	$780.00	$780.00
Cost of goods sold:				
Beginning inventory	$ 80.00	$ 80.00	$ 80.00	$ 80.00
Purchases	610.00	610.00	610.00	610.00
Cost of goods available for sale	$690.00	$690.00	$690.00	$690.00
Ending inventory	181.00	179.00	165.00	172.50
Cost of goods sold	$509.00	$511.00	$525.00	$517.50
Gross Margin	$271.00	$269.00	$255.00	$262.50

Exhibit 61: Effects of different inventory costing methods using periodic inventory procedure

An accounting perspective: Business insight

Sometimes, companies change inventory methods in spite of the principle of consistency. Improved financial reporting is the only justification for a change in inventory method. A company that changes its inventory method must make a full disclosure of the change. Usually, the company makes a full disclosure in a footnote to the financial statements. The footnote consists of a complete description of the change, the reasons why the change was made, and, if possible, the effect of the change on net income.

J. M. Tull Industries, Inc., sells a diverse range of metals (aluminum, brass, copper, steel, stainless steel, and nickel alloys) for severe corrosion conditions and high-temperature applications. For example, when J. M. Tull changed from lower of average cost or market to LIFO, the following footnote appeared in its annual report:

Note B. Change in accounting method for inventory

The company changed its method of determining inventory cost from the lower of average cost or market method to the last-in, first-out (LIFO) method for substantially all inventory. This change was made because management believes LIFO more clearly reflects income by providing a closer matching of current cost against current revenue.

Now we illustrate in more detail the journal entries made when using perpetual inventory procedure. Data from Exhibit 56 serves as the basis for some of the entries.

You would debit the Merchandise Inventory account to record the increases in the asset due to purchase costs and transportation-in costs. You would credit Merchandise Inventory to record the decreases in the asset brought about by purchase returns and allowances, purchase discounts, and cost of goods sold to customers. The balance in the account is the cost of the inventory that should be on hand at any date. This entry records the purchase of 10 units on March 2 in Exhibit 56:

			Debit	Credit
Mar.	2	Merchandise Inventory (+A)	85	
		Accounts Payable (+L)		85
		To record purchases of 10 units at $8.50 on account.		

You would also record the 10 units sold on the perpetual inventory record in Exhibit 56. Perpetual inventory procedure requires two journal entries for each sale. One entry is at selling price—a debit to Accounts Receivable (or Cash) and a credit to Sales. The other entry is at cost—a debit to Cost of Goods Sold and a credit to Merchandise Inventory. Assuming that the 10 units sold on March 10 in Exhibit 56 had a retail price of USD 13 each, you would record the following entries:

			Debit	Credit
Mar.	10	Accounts Receivable (+A)	130	
		Sales (+SE)		130
		To record 10 units sold at $13 each on account.		
	10	Cost of Goods Sold (-SE)	80	
		Merchandise Inventory (-A)		80
		To record cost of $8 on each of the 10 units sold.		

When a company sells merchandise to customers, it transfers the cost of the merchandise from an asset account (Merchandise Inventory) to an expense account (Cost of Goods Sold). The company makes this transfer because the sale reduces the asset, and the cost of the goods sold is one of the expenses of making the sale. Thus, the Cost of Goods Sold account accumulates the cost of all the merchandise that the company sells during a period.

A sales return also requires two entries, one at selling price and one at cost. Assume that a customer returned merchandise that cost USD 20 and originally sold for USD 32. The entry to reduce the accounts receivable and to record the sales return of USD 32 is:

			Debit	Credit
Mar.	17	Sales Return and Allowances (-SE)	32	
		Accounts Receivable (-A)		32
		To record the reduction in amount owed by a customer upon return of goods.		

The entry that increases the Merchandise Inventory account and decreases the Cost of Goods Sold account by USD 20 is as follows:

			Debit	Credit
Mar.	17	Merchandise Inventory (+A)	20	
		Cost of Goods Sold (+SE)		20
		To record replacement of goods returned to inventory.		

Sales returns affect both revenues and cost of goods sold because the goods charged to cost of goods sold are actually returned to the seller. In contrast, sales allowances granted to customers affect only revenues because the customers do not have to return goods. Thus, if the company had granted a sales allowance of USD 32 on March 17, only the first entry would be required.

The balance of the Merchandise Inventory account is the cost of the inventory that should be on hand. This fact is a major reason some companies choose to use perpetual inventory procedure. The cost of inventory that should be on hand is readily available. A physical inventory determines the accuracy of the account balance. Management may investigate any major discrepancies between the balance in the account and the cost based on the physical count. It thereby achieves greater control over inventory. When a shortage is discovered, an adjusting entry is required. Assuming a USD 15 shortage (at cost) is discovered, the entry is:

Dec.	31	Loss from Inventory Shortage (-SE)	15	
		Merchandise Inventory (-A)		15
		To record inventory shortage		

Assume that the Cost of Goods Sold account had a balance of USD 200,000 by year-end when it is closed to Income Summary. There are no other purchase-related accounts to be closed. The entry to close the Cost of Goods Sold account is:

Dec.	31	Income Summary	200,000	
		Cost of Goods Sold		200,000
		To close Cost of Goods Sold account to Income Summary at the end of the year.		

8.6 Departures from cost basis of inventory measurement

Generally, companies should use historical cost to value inventories and cost of goods sold. However, some circumstances justify departures from historical cost. One of these circumstances is when the utility or value of inventory items is less than their cost. A decline in the selling price of the goods or their replacement cost may indicate such a loss of utility. This section explains how accountants handle some of these departures from the cost basis of inventory measurement.

Companies should not carry goods in inventory at more than their net realizable value. **Net realizable value** is the estimated selling price of an item less the estimated costs that the company incurs in preparing the item for sale and selling it. Damaged, obsolete, or shopworn goods often have a net realizable value lower than their historical cost and must be written down to their net realizable value. However, goods do not have to be damaged, obsolete, or shopworn for this situation to occur. Technological changes and increased competition have caused significant reductions in selling prices for such products as computers, TVs, DVD players, and digital cameras.

To illustrate a necessary write-down in the cost of inventory, assume that an automobile dealer has a demonstrator on hand. The dealer acquired the auto at a cost of USD 18,000. The auto had an original selling price of USD 19,600. Since the dealer used the auto as a demonstrator and the new models are coming in, the auto now has an estimated selling price of only USD 18,100. However, the dealer can get the USD 18,100 only if the demonstrator receives some scheduled maintenance, including a tune-up and some paint damage repairs. This work and the sales commission cost USD 300. The net realizable value of the demonstrator, then, is USD 17,800 (selling price of USD 18,100 less costs of USD 300). For inventory purposes, the required journal entry is:

Loss Due to the Decline in Market Value of Inventory (-SE)	200	
Merchandise Inventory (-A)		200
To write down inventory to net realizable value ($18,000 - $17,800)		

This entry treats the USD 200 inventory decline as a loss in the period in which the decline in utility occurred. Such an entry is necessary only when the net realizable value is less than cost. If net realizable value declines but still exceeds cost, the dealer would continue to carry the item at cost.

The **lower-of-cost-or-market (LCM) method** is an inventory costing method that values inventory at the lower of its historical cost or its current market (replacement) cost. The term cost refers to historical cost of inventory as determined under the specific identification, FIFO, LIFO, or weighted-average inventory method. Market generally refers to a merchandise item's replacement cost in the quantity usually purchased. The basic assumption of the LCM method is that if the purchase price of an item has fallen, its selling price also has fallen or will fall. The LCM method has long been accepted in accounting.

Under LCM, inventory items are written down to market value when the market value is less than the cost of the items. For example, assume that the market value of the inventory is USD 39,600 and its cost is USD 40,000. Then, the company would record a USD 400 loss because the inventory has lost some of its revenue-generating ability. The company must recognize the loss in the period the loss occurred. On the other hand, if ending inventory has a market value of USD 45,000 and a cost of USD 40,000, the company would not recognize this increase in value. To do so would recognize revenue before the time of sale.

LCM applied A company may apply LCM to each inventory item (such as Monopoly), each inventory class (such as games), or total inventory. To see how the company would apply the method to individual items and total inventory, look at Exhibit 62.

If LCM is applied on an item-by-item basis, ending inventory would be USD 5,000. The company would deduct the USD 5,000 ending inventory from cost of goods available for sale on the income statement and report this inventory in the current assets section of the balance sheet. Under the class method, a company applies LCM to the total cost and total market for each class of items compared. One class might be games; another might be toys. Then, the company values each class at the lower of its cost or market amount. If LCM is applied on a total inventory basis, ending inventory would be USD 5,100, since total cost of USD 5,100 is lower than total market of USD 5,150.

An annual report of Du Pont contains an actual example of applying LCM. The report states that "substantially all inventories are valued at cost as determined by the last-in, first-out (LIFO) method; in the aggregate, such valuations are not in excess of market". The term in the aggregate means that Du Pont applied LCM to total inventory.

An accounting perspective: Business insight

Procter & Gamble markets a broad range of laundry, cleaning, paper, beauty care, health care, food, and beverage products around the world. Procter & Gamble's footnote in its Notes to Consolidated Financial Statements in its annual report illustrates that companies often disclose LCM in their notes to financial statements.

Inventories are valued at cost, which is not in excess of current market price. Cost is primarily determined by either the average cost or the first-in, first-out method. The replacement cost of last-in, first-out inventories exceeds carrying value by approximately USD 169 [million].

Item	Quantity	Unit Cost	Unit Market	Total Cost	Total Market	LCM on Item-by-Item Basis
1	100 units	$10	$9.00	$1,000	$ 900	$ 900
2	200 units	8	8.75	1,600	1,750	1,600
3	500 units	5	5.00	2,500	2,500	2,500
				$5,100	$5,150	$5,000

Exhibit 62: Application of lower-of-cost-or-market method

Merchandise inventory, 2010 January		*$ 40,000*
Net cost of purchases		*480,000*
Cost of goods available for sale		*$520,000*
Less estimated cost of goods sold:		
Net sales	*$700,000*	
Gross margin (30% of $700,000)	*210,000*	
Estimated cost of goods sold		*490,000*
Estimated inventory, 2010 December 31		*$ 30,000*

Exhibit 63: Inventory estimation using gross margin method

A company using periodic inventory procedure may estimate its inventory for any of the following reasons:

- To obtain an inventory cost for use in monthly or quarterly financial statements without taking a physical inventory. The effort of taking a physical inventory can be very expensive and disrupts normal business operations; once a year is often enough.
- To compare with physical inventories to determine whether shortages exist.
- To determine the amount recoverable from an insurance company when fire has destroyed inventory or the inventory has been stolen.

Next, we introduce two recognized methods of estimating the cost of ending inventory when a company has not taken a physical inventory—the gross margin method and the retail inventory method.

Gross margin method The steps in calculating ending inventory under the gross margin method are:

- Estimate gross margin (based on net sales) using the same gross margin rate experienced in prior accounting periods.
- Determine estimated cost of goods sold by deducting estimated gross margin from net sales.
- Determine estimated ending inventory by deducting estimated cost of goods sold from cost of goods available for sale.

Thus, the **gross margin method** estimates ending inventory by deducting estimated cost of goods sold from cost of goods available for sale.

The gross margin method assumes that a fairly stable relationship exists between gross margin and net sales. In other words, gross margin has been a fairly constant percentage of net sales, and this relationship has continued into the current period. If this percentage relationship has changed, the gross margin method does not yield satisfactory results.

To illustrate the gross margin method of computing inventory, assume that for several years Field Company has maintained a 30 per cent gross margin on net sales. The following data for 2010 are available: The January 1 inventory was USD 40,000; net cost of purchases of merchandise was USD 480,000; and net sales of merchandise were USD 700,000. As shown in Exhibit 63, Field can estimate the inventory for 2010 December 31, by deducting the estimated cost of goods sold from the actual cost of goods available for sale.

An alternative format for calculating estimated ending inventory uses the standard income statement format and solves for the one unknown (ending inventory):

Net sales		$700,000	
Less cost of goods sold:			
Merchandise inventory, 2010 January 1	$ 40,000		
Net cost of purchases	480,000		
Cost of goods available for sale	$520,000		
Less estimated inventory, 2010 December 31			
Estimated cost of goods sold		490,000	(70% of net sales
Estimated gross margin		$210,000	(30% of net sales)

We know that:

$$\text{Costs of goods available for sale} - \text{Ending inventory} = \text{Cost of goods sold}$$

Therefore (let X = Ending inventory):

USD 520,000 - X = USD 490,000

X = USD 30,000

The gross margin method is not precise enough to be used for year-end financial statements. At year-end, a physical inventory must be taken and valued by either the specific identification, FIFO, LIFO, or weighted-average methods.

Retail inventory method Retail stores frequently use the retail inventory method to estimate ending inventory at times other than year-end. Taking a physical inventory during an accounting period (such as monthly or quarterly) is too time consuming and significantly interferes with business operations. The **retail inventory method** estimates the cost of the ending inventory by applying a cost/retail price ratio to ending inventory stated at retail prices. The advantage of this method is that companies can estimate ending inventory (at cost) without taking a physical inventory. Thus, the use of this estimate permits the preparation of interim financial statements (monthly or quarterly) without

taking a physical inventory. The steps for finding the ending inventory by the retail inventory method are:

- Total the beginning inventory and the net amount of goods purchased during the period at both cost and retail prices.
- Divide the cost of goods available for sale by the retail price of the goods available for sale to find the cost/retail price ratio.
- Deduct the retail sales from the retail price of the goods available for sale to determine ending inventory at retail.
- Multiply the cost/retail price ratio or percentage by the ending inventory at retail prices to reduce it to the ending inventory at cost.

	Cost	**Retail**
Merchandise inventory, 2010 January 1	$ 22,000	$ 40,000
Purchases	182,000	303,000
Purchase returns	(2,000)	(3,000)
Purchase allowances	(3,000)	
Transportation-in	5,000	
Goods available for sale	$204,000	$340,000
Cost/retail price ratio:		
$204,000/$340,000=60%		
Sales		280,000
Ending inventory at retail prices		$ 60,000
Times cost/retail price ratio		x 60%
Ending inventory at cost, 2010 March 31	$ 36,000	

Exhibit 64: Inventory estimation

In Exhibit 64, we show the retail inventory method. In the exhibit, the cost (USD 22,000) and retail (USD 40,000) amounts for beginning inventory are available from the preceding period's computation. The amounts for the first quarter purchases, purchase returns, purchase allowances, and transportation-in came from the accounting records. The amounts for purchase allowances and transportation-in appear only in the cost column. The first quarter sales amount (USD 280,000) is from the Sales account and stated at retail (sales) prices. The difference between what was available for sale at retail prices and what was sold at retail prices (which is sales) equals what should be on hand (March 31 inventory of USD 60,000) expressed in retail prices. The retail price of the March 31 inventory needs to be converted into cost for use in the financial statements. We do this by multiplying it times the cost/retail price ratio. In the example, the cost/retail price ratio is 60 per cent, which means that on the average, 60 cents of each sales dollar is cost of goods sold. To find the 2010 March 31, inventory at cost (USD 36,000), we multiplied the ending inventory at retail (USD 60,000) by 60 per cent.

Once the March 31 inventory has been estimated at cost (USD 36,000), we deduct the cost of the inventory from cost of goods available for sale (USD 204,000) to determine cost of goods sold (USD 168,000). We can also find the cost of goods sold by multiplying the cost/retail price ratio of 60 per cent by sales of USD 280,000.

For the next quarterly period, the USD 36,000 and USD 60,000 amounts would appear on the schedule as beginning inventory at cost and retail, respectively. We would include other quarterly data regarding purchases, purchase returns, purchase allowances, and transportation-in to determine goods available for sale at cost and at retail. From these amounts, we could compute a new cost/retail price ratio for the second quarter.

At the end of each year, merchandisers usually take a physical inventory at retail prices. Since the retail prices are on the individual items (while the cost is not), taking an inventory at retail prices is more convenient than taking an inventory at cost. Accountants can then compare the results of the physical inventory to the calculation of inventory at retail under the retail inventory method for the fourth quarter to determine whether a shortage exists.

Both the gross margin and the retail inventory methods can help you detect inventory shortages. To illustrate how you can determine inventory shortages using the retail method, assume that a physical inventory taken at year end, showed only USD 62,000 of retail-priced goods in the store. Assume that use of the retail method for the fourth quarter showed that USD 66,000 of goods should be on hand, thus indicating a USD 4,000 inventory shortage at retail. After converting the USD 4,000 to USD 2,400 of cost (USD 4,000 X 0.60) you would report this as a "Loss from inventory shortage" in the income statement. Knowledge of such shortages may lead management to reduce or prevent them, by increasing security or improving the training of employees.

An ethical perspective: Dorsey hardware

Terry Dorsey started Dorsey Hardware, a small hardware store, two years ago and has struggled to make it successful. The first year of operations resulted in a substantial loss; in the second year, there was a small net income. His initial cash investment was almost depleted because he had to withdraw money for living expenses. The current year of operations looked much better. His customer base was growing and seemed to be loyal. To increase sales, however, Terry had to invest his remaining funds and the proceeds of a USD 40,000 bank loan into doubling the size of his inventory and purchasing some new display shelves and a new truck.

At the end of the third year, Terry's accountant asked him for his ending inventory figure and later told him that initial estimates indicated that net income (and taxable income) for the year would be approximately USD 80,000. Terry was delighted until he learned that the federal income taxes on that income would be about USD 17,250. He told the accountant that he did not have enough cash to pay the taxes and could not even borrow it, since he already had an outstanding loan at the bank.

Terry asked the accountant for a copy of the income statement figures so he could see if any items had been overlooked that might reduce his net income. He noticed that ending inventory of USD 160,000 had been deducted from cost of goods available for sale of USD 640,000 to arrive at cost of goods sold of USD 480,000. Net sales of USD 720,000 and expenses of USD 160,000 could not be changed. But Terry hit on a scheme to reduce his net income. The next day he told his accountant that he had made an error in determining ending inventory and that its correct amount was USD 120,000. This lower inventory amount would increase cost of goods sold by USD 40,000 and reduce net income by that same amount. The resulting income taxes would be about USD 6,000, which was just about what Terry had paid in estimated taxes.

To justify his action in his own mind, Terry used the following arguments: (1) federal taxes are too high, and the federal government seems to be taxing the little guy out of existence; (2) no harm is really done because, when the business becomes more profitable, I will use correct inventory amounts, and this loan from the government will be paid back; (3) since I am the only one who knows the correct ending inventory I will not get caught; and (4) I bet a lot of other people do the same thing.

8.7 Analyzing and using financial results—inventory turnover ratio

An important ratio for managers, investors, and creditors to consider when analyzing a company's inventory is the inventory turnover ratio. This ratio tests whether a company is generating a sufficient volume of business based on its inventory. To calculate the **inventory turnover ratio**:

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

Inventory turnover measures the efficiency of the firm in managing and selling inventory: thus, it gauges the liquidity of the firm's inventory. A high inventory turnover is generally a sign of efficient inventory management and profit for the firm; the faster inventory sells, the less time funds are tied up in inventory. A relatively low turnover could be the result of a company carrying too much inventory or stocking inventory that is obsolete, slow-moving, or inferior.

In assessing inventory turnover, analysts also consider the type of industry. When making comparisons among firms, they check the cost-flow assumption used to value inventory and cost of products sold.

Abercrombie & Fitch reported the following financial data for 2000 (in thousands):

Cost of goods sold.......	$728,229
Beginning inventory......	75,262
Ending inventory........	120,997

Their inventory turnover is:

USD 728,229/[(USD 75,262 + USD 120,997)/2] = 7.4 times

You should now understand the importance of taking an accurate physical inventory and knowing how to value this inventory. In the next chapter, you will learn the general principles of internal control and how to control cash. Cash is one of a company's most important and mobile assets.

8.8 Understanding the learning objectives

- Net income for an accounting period depends directly on the valuation of ending inventory.
- If ending inventory is overstated, cost of goods sold is understated, resulting in an overstatement of gross margin, net income, and retained earnings.

- When ending inventory is misstated in the current year, companies carry that misstatement forward into the next year.
- An error in the net income of one year caused by misstated ending inventory automatically causes an error in net income in the opposite direction in the next period because of the misstated beginning inventory.
- Inventory cost includes all necessary outlays to obtain the goods, get the goods ready to sell, and have the goods in the desired location for sale to customers.
- Inventory cost includes:
  a. Seller's gross selling price less purchase discount.
  b. Cost of insurance on the goods while in transit.
  c. Transportation charges when borne by the buyer.
  d. Handling costs, such as the cost of pressing clothes wrinkled during shipment.
- **Specific identification**: Attaches actual cost of each unit of product to units in ending inventory and cost of goods sold. Specific identification creates precise matching in determining net income.
- **FIFO (first-in, first-out)**: Ending inventory consists of the most recent purchases. FIFO assumes that the costs of the first goods purchased are those charged to cost of goods sold when goods are sold. During periods of rising prices, FIFO creates higher net income since the costs charged to cost of goods sold are lower.
- **LIFO (last-in, first-out)**: Ending inventory consists of the oldest costs. LIFO assumes that the costs of the most recent purchases are the first costs charged to cost of goods sold. Net income is usually lower under LIFO since the costs charged to cost of goods sold are higher due to inflation. The ending inventory may differ between perpetual and periodic inventory procedures.
- **Weighted-average**: Ending inventory is priced using a weighted-average unit cost. Under perpetual inventory procedure, a new weighted-average is determined after each purchase. Under periodic procedure, the average is determined at the end of the accounting period by dividing the total number of units purchased plus those in beginning inventory into total cost of goods available for sale. In determining cost of goods sold, this average unit cost is applied to each item. Under the weighted-average method, in a period of rising prices net income is usually higher than income under LIFO and lower than income under FIFO.
- **Specific identification**: Advantages: (1) States cost of goods sold and ending inventory at the actual cost of specific units sold and on hand, and (2) provides the most precise matching of costs and revenues. Disadvantage: Income manipulation is possible.

- **FIFO**: Advantages: (1) FIFO is easy to apply, (2) the assumed flow of costs often corresponds with the normal physical flow of goods, (3) no manipulation of income is possible, and (4) the balance sheet amount for inventory is likely to approximate the current market value. Disadvantages: (1) Recognizes paper profits, and (2) tax burden is heavier if used for tax purposes when prices are rising.
- **LIFO**: Advantages: (1) LIFO reports both sales revenue and cost of goods sold in current dollars, and (2) lower income taxes result if used for tax purposes when prices are rising. Disadvantages: (1) Often matches the cost of goods not sold against revenues, (2) grossly understates inventory, and (3) permits income manipulation.
- **Weighted-average**: Advantages: Due to the averaging process, the effects of year-end buying or not buying are lessened. Disadvantage: Manipulation of income is possible.
- Perpetual inventory procedure requires an entry to Merchandise Inventory whenever goods are purchased, returned, sold, or otherwise adjusted, so that inventory records reflect actual units on hand at all times. Thus, an entry is required to record cost of goods sold for each sale.
- Companies should not carry goods in inventory at more than their net realizable value. Net realizable value is the estimated selling price of an item less the estimated costs incurred in preparing the item for sale and selling it. Inventory items are written down to market value when the market value is less than the cost of the items. If market value is greater than cost, the increase in value is not recognized. LCM may be applied to each inventory item, each inventory class, or total inventory.
- The steps in calculating ending inventory under the gross margin method are:

  a. Estimate gross margin (based on net sales) using the same gross margin rate experienced in prior accounting periods.

  b. Determine estimated cost of goods sold by deducting estimated gross margin from net sales.

  c. Determine estimated ending inventory by deducting estimated cost of goods sold from cost of goods available for sale.
- The retail inventory method estimates the cost of the ending inventory by applying a cost/retail price ratio to ending inventory stated at retail prices. To find the cost/retail price ratio, divide the cost of goods available for sale by the retail price of the goods available for sale.
- $\text{Inventory turnover ration} = \frac{(\text{Cost of goods sold})}{(\text{Average inventory})}$

- Inventory turnover measures the efficiency of the firm in managing and selling inventory. It gauges the liquidity of the firm's inventory.

8.8.1 Demonstration problem

Demonstration problem A Following are data related to Adler Company's beginning inventory, purchases, and sales:

Beginning Inventory and Purchases			**Sales**	
Units		**Unit Cost**		**Units**
Beginning inventory 6,250	@	$3.00	February 3	5,250
March 15 5,000	@	3.12	May 4	4,500
May 10 8,750	@	3.30	September 16	8,000
August 12 6,250	@	3.48	October 9	7,250
November 20 3,750	@	3.72		
30,000				25,000

a. Compute the ending inventory under each of the following methods:

Specific identification (assume ending inventory is taken equally from the August 12 and November 20 purchases).

FIFO: (a) Assume use of perpetual inventory procedure.

(b) Assume use of periodic inventory procedure.

LIFO: (a) Assume use of perpetual inventory procedure.

(b) Assume use of periodic inventory procedure.

Weighted-average: (a) Assume use of perpetual inventory procedure.

(b) Assume use of periodic inventory procedure.

(Carry unit cost to four decimal places and round total cost to nearest dollar.)

b. Give the journal entries to record the individual purchases and sales (Cost of Goods Sold entry only) under the LIFO method and perpetual procedure.

Demonstration problem B a. Joel Company reported annual net income as follows:

2007.... USD 27,200

2008.... USD 28,400

2009.... USD 24,000

Analysis of the inventories shows that certain clerical errors were made with the following results:

	Incorrect inventory amount	Correct inventory amount
2007 December 31	$4,800	$5,680
2008 December 31	5,600	4,680

What is the corrected net income for 2007, 2008, and 2009?

b. The records of Little Corporation show the following account balances on the day a fire destroyed the company's inventory:

Merchandise inventory, January 1 USD 40,000

Net cost of purchases (to date) USD 200,000

Sales (to date) USD 300,000

Average rate of gross margin for the past five years 30 per cent of net sales.

Compute an estimated value of the ending inventory using the gross margin method.

c. The records of Draper Company show the following account balances at year-end:

	Cost	Retail
Merchandise inventory, January 1	.$17,600	$25,000
Purchases	68,000	100,000
Transportation-in	1,900	
Sales		101,000

Compute the estimated ending inventory at cost using the retail inventory method.

8.8.2 Solution to demonstration problem

Solution to demonstration problem A a. The ending inventory is 5,000 units, calculated as follows:

	Units
Beginning inventory	6,250
Purchases	23,750
Goods available	30,000
Sales	25,000
Ending inventory	5,000

Ending inventory under specific identification:

Purchased	Units	Unit Cost	Total Cost
November 20	2,500	$3.72	$ 9,300
August 12	2,500	3.48	8,700
			$ 18,000

2. Ending inventory under FIFO:

(a) Perpetual:

Date	Purchased Units	Unit Cost	Total Cost	Units	Sold Unit Cost	Total Cost	Units	Balance Unit	
Beg. inv.							6,250	$3.00	$18,750
Feb. 3				5,250	$3.00	$15,750	1,000	3.00	3,000
Mar. 15	5,000	$3.12	$15,600				1,000	3.00	3,000
							5,000	3.12	15,600
May 4				1,000	3.00	3,000	1,500	3.12	4,680
				3,500	3.12	10,920			
May 10	8,750	3.30	28,875				1,500	3.12	4,680
							8,750	3.30	28,875
Aug. 12	6,250	3.48	21,750				1,500	3.12	4,680
							8,750	3.30	28,875
							6,250	3.48	21,750
Sept. 16				1,500	3.12	4,680	2,250	3.30	7,425
				6,500	3.30	21,450	6,250	3.48	21,750
Oct. 9				2,250	3.30	7,425	1,250	3.48	4,350
				5,000	3.48	17,400			
Nov. 20	3,750	3.72	13,950				1,250	3.48	4,350
							3,750	3.72	13,950

Ending inventory = (1,250 X $3.48) + (3,750 X $3.72) = $18,300

(b) Periodic:

Purchased	Units	Unit Cost	Total Cost
November 20	3,750	$3.72	$ 13,950
August 12	1,250	3.48	4,350
	5,000		$ 18,300 *

*Note that the cost of ending inventory is the same as under perpetual.

3. Ending inventory under LIFO:

(a) Perpetual:

Date	Purchased Units	Unit Cost	Total Cost	Units	Sold Unit Cost	Total Cost	Units	Balance Unit	
Beg. inv.							6,250	$3.00	$18,750
Feb. 3				5,250	$3.00	$15,750	1,000	3.00	3,000
Mar. 15	5,000	$3.12	$15,600				1,000	3.00	3,000
							5,000	3.12	15,600
May 4				4,500	3.12	14,040	1,000	3.00	3,000
							500	3.12	1,560
	8,750	3.30	28,875				1,000	3.00	3,000
May 10							500	3.12	1,560
							8,750	3.30	28,875
Aug. 12	6,250	3.48	21,750				1,000	3.00	3,000
							500	3.12	1,560
							8,750	3.30	28,875
							6,250	3.48	21,750
Sept. 16				6,250	3.48	21,750	1,000	3.00	3,000
				1,750	3.30	5,775	500	3.12	1,560
							7,000	3.30	23,100
Oct. 9				7,000	3.30	23,100	1,000	3.00	3,000
				250	3.12	780	250	3.12	780
Nov. 20	3,750	3.72	13,950				1,000	3.00	3,000
							250	3.12	780
							3,750	3.72	13,950
Ending inventory =		(1,000	X $3.00) + (250 X $3.12) + (3,750 X				$3.72) =	$17,730	

(b) Periodic:

	Units	Unit Cost	Total Cost
Merchandise Inventory, January 1	5,000	$3.00	$ 15,000

4. Ending inventory under weighted-average:

(a) Perpetual:

	Purchased			Sold			Balance		
Date	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**	**Units**	**Unit Cost**	**Total Cost**
Beg. inv.							6,250	$3.0000	$18,750
Feb. 3				5,250	$3.00	$15,750	1,000	3.0000	3,000
Mar. 15	5,000	$3.12	$15,600				6,000	3.1000 [a]	18,600
May 4				4,500	3.10	13,950	1,500	3.1000	4,650
May 10	8,750	3.30	28,875				10,250	3.2707 [b]	33,525
Aug. 12	6,250	3.48	21,750				16,500	3.3500 [c]	55,275
Sept. 16				8,000	3.35	26,800	8,500	3.3500	28,475 *
Oct. 9				7,250	3.35	24,288	1,250	3.3500	4,187 *
Nov. 20	3,750	3.72	13,950				5.000	3.6274 [d]	18,137

Ending inventory = (5,000 X $3.6274) = $18,137

[a] $18,600 = $3.100 [b] $33,525 = $3.2707 [c] $55,275 = $3.3500 [d] $18,137 = $3.6274
6,000 10,250 16,500 5,000
* Rounding difference.

(b) Periodic

Purchased	Units	Unit Cost		Total Cost
Merchandise Inventory, January 1	*6,250*	*$3.00*	*$*	*18,750*
March 15	*5,000*	*3.12*		*15,600*
May 10	*8,750*	*3.30*		*28,875*
August 12	*6,250*	*3.48*		*21,750*
November 20	*3,750*	*3.72*		*13,950*
	30,000		*$*	*98,925*

Weighted-average unit cost = $98,925/30,000 = $3.2975
Ending inventory cost = $3.2975 x 5,000 = $16,488*

*Rounding difference

b. Journal entries under LIFO perpetual:

			Debit	Credit
Feb.	3	Cost of Goods Sold (-SE)	15,750	15,750
		Merchandise Inventory (-A)		
		To record cost of $3 on 5,200 units sold		
Mar.	15	Merchandise Inventory (+A)	15,600	15,600
		Accounts Payable (+L)		
		To record purchase of 5,000 units at $3.12 on Account.		
May	4	Cost of Goods Sold (-SE)	14,040	14,040
		Merchandise Inventory (-A)		
		To record cost of $3.12 on 4,500 units sold.		
	10	Merchandise Inventory (+A)	28,875	28,875
		Accounts Payable (+L)		
		To record purchase of 8,750 units at $3.30 on account.		
Aug.	12	Merchandise Inventory (+A)	21,750	21,750
		Accounts Payable (+L)		
		To record purchase of 6,250 units at $3.48 on account		
Sept.	16	Cost of Goods Sold (-SE)	27,525	27,525
		Merchandise Inventory (-A)		
		To record costs of $3.48 and $3.30 on 6,250 units at 1,750 units sold, respectively.		
Oct.	9	Cost of Goods Sold (-SE)	23,880	23,880
		Merchandise Inventory (-A)		
		To record costs of $3.30 and $3.12 on 7,000 units and 250 units sold, respectively.		
Nov.	20	Merchandise Inventory (+A)	13,950	13,950
		Accounts Payable (+L)		
		To record purchase of 3,750 units at $3.72 on account.		

Solution to demonstration problem B a. Corrected net income:

	2007	2008	2009	Total
Net income as reported	$ 27,200	28,400	24,000	$ 79,600
Adjustments				
(1)	880			
(2)		(880)		
		(920)		
(3)			920	
Corrected net income	$ 28,080	26,600	24,920	$ 79,600

(1) Ending inventory understated ($ 5,680 - $ 4,800 = $ 880)
(2) Beginning inventory understated (5,680 – 4,800 = 880)
Ending inventory overstated (5,600 – 4,680 = 920)
(3) Beginning inventory overstated (5,600 – 4,680 = 920)

b. Computation of inventory:

Merchandise Inventory, January 1		$ 40,000
Net cost of purchases		200,000
Cost of goods available for sale		$ 240,000
Less estimated cost of goods sold:		
Net Sales	$ 300,000	
Gross margin ($300,000 X 0.30)	90,000	
Estimated cost of goods sold		210,000
Inventory at cost, estimated by gross margin method.		$ 30,000

c. Computation of inventory:

	Cost	Retail
Merchandise Inventory, January 1	$ 17,600	$ 25,000
Purchases	68,000	100,000
Transportation-in	1,900	—
Goods available for sale	$ 87,500	$ 125,000
$		
Cost/retail price ratio:		
$87,500/$125,000 = 70%		
Sales		101,000
Ending inventory at retail price		$24,000
Times cost/retail price ratio		X 70%
Ending inventory at cost, December 31.	$ 16,800	

8.8.3 Key terms

FIFO (first-in, first-out) A method of costing inventory that assumes the costs of the first goods purchased are those charged to cost of goods sold when the company actually sells goods.

Gross margin method A procedure for estimating inventory cost in which estimated cost of goods sold (determined using an estimated gross margin) is deducted from the cost of goods available for sale to determine estimated ending inventory. The estimated gross margin is calculated using gross margin rates (in relation to net sales) of prior periods.

Inventory, or paper, profits Equal to the current replacement cost to purchase a unit of inventory at time of sale minus the unit's historical cost.

Inventory turnover ratio Cost of goods sold/Average inventory.

LIFO (last-in, first-out) A method of costing inventory that assumes the costs of the most recent purchases are the first costs charged to cost of goods sold when the company actually sells the goods.

Lower-of-cost-or-market (LCM) method An inventory costing method that values inventory at the lower of its historical cost or its current market (replacement) cost.

Merchandise inventory The quantity of goods held by a merchandising company for resale to customers.

Net realizable value Estimated selling price of an item less the estimated costs incurred in preparing the item for sale and selling it.

Retail inventory method A procedure for estimating the cost of the ending inventory by applying a cost/ retail price ratio to ending inventory stated at retail prices.

Specific identification method An inventory costing method that attaches the actual cost to an identifiable unit of product.

Weighted-average method A method of costing ending inventory using a weighted-average unit cost. Under perpetual inventory procedure, a new weighted-average is calculated after each purchase. Under periodic procedure, the weighted-average is determined by dividing the total number of units purchased plus those in beginning inventory into total cost of goods available for sale. Units in the ending inventory are carried at this per unit cost.

8.8.4 Self-test

8.8.4.1 True-false

Indicate whether each of the following statements is true or false.

(1) Overstated ending inventory results in an overstatement of cost of goods sold and an understatement of gross margin and net income.

(2) In a period of rising prices, FIFO results in the lowest cost of goods sold.

(3) Under LCM, inventory is written down to market value when the market value is less than the cost, and inventory is written up to market value when the market value is greater than the cost.

(4) Under the gross margin method, an estimate must be made of gross margin to determine estimated cost of goods sold and estimated ending inventory.

(5) To use the retail inventory method, both cost and retail prices must be known for the goods available for sale.

(6) Under perpetual procedure, cost of goods sold is determined as a result of the closing entries made at the end of the period.

8.8.4.2 Multiple-choice

Select the best answer for each of the following questions.

Jack Company began the accounting period with inventory of 3,000 units at USD 30 each. During the period, the company purchased an additional 5,000 units at USD 36 each and sold 4,600 units. Assume the use of periodic inventory procedure for the following six questions.

Cost of ending inventory using FIFO is:

a. USD 104,400.

b. USD 122,400.

c. USD 120,000.

d. USD 147,600.

e. None of the above.

Cost of goods sold using FIFO is:

a. USD 165,600.

b. USD 150,000.

c. USD 147,600.

d. USD 122,400.

e. None of the above.

Cost of ending inventory using LIFO is:

a. USD 104,400.

b. USD 114,750.

c. USD 156,000.

d. USD 122,400.

e. None of the above.

Cost of goods sold using LIFO is:

a. USD 155,250.

b. USD 114,000.

c. USD 147,600.

d. USD 165,600.

e. None of the above.

Cost of ending inventory using weighted-average is:

a. USD 114,750.

b. USD 157,600.

c. USD 122,400.

d. USD 109,650.

e. None of the above.

Cost of goods sold using weighted-average is:

a. USD 147,200.
b. USD 160,350.
c. USD 155,250.
d. USD 114,000.
e. None of the above.

During a period of rising prices, which inventory method might be expected to give the highest net income?

a. Weighted-average.
b. FIFO.
c. LIFO.
d. Specific identification.
e. Cannot determine.

Now turn to "Answers to self-test" at the end of the chapter to check your answers.

8.8.4.3 Questions

- Why is proper inventory valuation so important?
- Why does an understated ending inventory understate net income for the period by the same amount?
- Why does an error in ending inventory affect two accounting periods?
- What is the meaning of taking a physical inventory?
- What is the accountant's responsibility regarding taking a physical inventory?
- Which cost elements are included in inventory? What practical problems arise by including the costs of such elements?
- Which accounts that are used under periodic inventory procedure are not used under perpetual inventory procedure?
- What entries are necessary under perpetual inventory procedure when goods are sold?
- Why is there closer control over inventory under perpetual inventory procedure than under periodic inventory procedure?
- Why is perpetual inventory procedure being used increasingly in business?

- What is the cost flow assumption? What is meant by the physical flow of goods? Does a relationship between cost flows and the physical flow of goods exist, or should such a relationship exist?
- Indicate how a company can manipulate its net income if it uses LIFO. Is the same opportunity available under FIFO? Why or why not?
- What are the main advantages of using FIFO and LIFO?
- Which inventory method is the correct one? Can a company change inventory methods?
- Why are ending inventory and cost of goods sold the same under FIFO perpetual and FIFO periodic?
- Would you agree with the following statement? Reducing the amount of taxes payable currently is a valid objective of business management and, since LIFO results in such a reduction, all businesses should use LIFO.
- What is net realizable value, and how is it used?
- Why is it acceptable accounting practice to recognize a loss by writing down an item in inventory to market, but unacceptable to recognize a gain by writing up an inventory item?
- Under what conditions would the gross margin method of computing an estimated inventory yield approximately correct amounts?
- What are the main reasons for estimating ending inventory?
- Should a company rely exclusively on the gross margin method to determine the ending inventory and cost of goods sold for the end-of-year financial statements?
- How can the retail method be used to estimate inventory?
- **The Limited** Based on the notes to the financial statements of The Limited contained in the Annual Report Appendix, what inventory methods were used?

8.8.4.4 Exercises

Exercise A Crocker Company reported annual net income as follows:

2008	$484,480
2009	487,680
2010	409,984

Analysis of its inventories revealed the following incorrect inventory amounts and these correct amounts:

	Incorrect Inventory Amount	Correct inventory amount
2008 December 31	$ 76,800	$89,600
2009 December 31	86,400	77,600

Compute the annual net income for each of the three years assuming the correct inventories had been used.

Exercise B Slate Truck Company manufactures trucks and identifies each truck with a unique serial plate. On December 31, a customer ordered 5 trucks from the company, which currently has 20 trucks in its inventory. Ten of these trucks cost USD 20,000 each, and the other 10 cost USD 25,000 each. If Slate wished to minimize its net income, which trucks would it ship? By how much could Slate reduce net income by selecting units from one group versus the other group?

Exercise C Miami Discount Company inventory records show:

	Units	Unit Cost	Total Cost
Beginning inventory	3,000	$38.00	$114,000
Purchases:			
February 14	900	39.00	35,100
March 18	2,400	40.00	96,000
July 21	1,800	40.30	72,540
September 27	1,800	40.60	73,080
November 27	600	41.00	24,600
Sales:			
April 15	2,800		
August 20	2,000		
October 3	1,500		

The December 31 inventory was 4,200 units. Miami Discount Company uses perpetual inventory procedure. Present a schedule showing the measurement of the ending inventory using FIFO perpetual inventory procedure.

Exercise D Using the data in the previous exercise for Miami Discount Company, present a schedule showing the measurement of the ending inventory using LIFO perpetual inventory procedure.

Exercise E London Company had a beginning inventory of 160 units at USD 24 (total = USD 3,840) and the following inventory transactions during the year:

January 8, sold 40 units.

January 11, purchased 80 units at USD 30.00.

January 15, purchased 80 units at USD 32.00.

January 22, sold 80 units.

Using the preceding information, price the ending inventory at its weighted-average cost, assuming perpetual inventory procedure.

Exercise F Kettle Company made the following purchases of Product A in its first year of operations:

	Units		Unit Cost
January 2	1,400	@	$7.40
March 31	1,200	@	7.00
July 5	2,400	@	7.60
November 1	1,800	@	8.00

The ending inventory that year consisted of 2,400 units. Kettle uses periodic inventory procedure.

a. Compute the cost of the ending inventory using each of the following methods: (1) FIFO, (2) LIFO, and (3) weighted-average.

b. Which method would yield the highest amount of gross margin? Explain why it does.

Exercise G The following are selected transactions and other data of the Custer Company:

Purchased 20 units at USD 360 per unit on account on 2010 September 18.

Sold 6 units on account for USD 576 per unit on 2010 September 20.

Discovered a shortage of USD 2,640 at year-end after a physical inventory.

Prepare journal entries for these transactions using FIFO perpetual inventory procedure. Assume the beginning inventory consists of 20 units at USD 336 per unit.

Exercise H Following are selected transactions of Gamble Company:

Purchased 100 units of merchandise at USD 240 each; terms 2/10, n/30.

Paid the invoice in transaction 1 within the discount period.

Sold 80 units at USD 384 each for cash.

Purchased 100 units at USD 360; terms 2/10, n/30.

Paid the invoice in transaction 4 within the discount period.

Sold 60 units at USD 552 each for cash.

Prepare journal entries for the six preceding items. Assume Gamble uses FIFO perpetual inventory procedure.

Exercise I Wells Company had the following transactions during February:

Purchased 135 units at USD 65 on account.

Sold 108 units at USD 90 on account.

Purchased 170 units at USD 75 on account.

Sold 122 units at USD 95 on account.

Sold 67 units at USD 100 on account.

The beginning inventory consisted of 67 units purchased at a cost of USD 55.

Prepare the journal entries relating to inventory for these five transactions, assuming Wells accounts for inventory using perpetual inventory procedure and the LIFO inventory method. Do not record the entries for sales.

Exercise J Following are inventory data for Kintech Company:

January 1 inventory on hand, 400 units at USD 28.80.

January sales were 80 units.

February sales totaled 120 units.

March 1, purchased 200 units at USD 30.24.

Sales for March through August were 160 units.

September 1, purchased 40 units at USD 33.12.

September through December sales were 180 units.

Exercise K A company purchased 1,000 units of a product at USD 12.00 and 2,000 units at USD 13.20. It sold all of these units at USD 18.00 each at a time when the current cost to replace the units sold was USD 13.80. Compute the amount of gross margin under FIFO that LIFO supporters would call inventory, or paper, profits.

Exercise L Clayton Company's inventory was 12,000 units with a cost of USD 160 each on 2010 January 1. During 2010, numerous units were purchased and sold. Also during 2010, the purchase price of this product fell steadily until at year-end it was USD 120. The inventory at year-end was

18,000 units. State which method of inventory measurement, LIFO or FIFO, would have resulted in higher reported net income, and explain briefly.

Exercise M Levi Motor Company owns a luxury automobile that it has used as a demonstrator for eight months. The auto has a list or sticker price of USD 85,000 and cost Levi USD 75,000. At the end of the fiscal year, the auto is on hand and has an expected selling price of USD 80,000. Costs expected to be incurred to sell the auto include tune-up and maintenance costs of USD 3,000, advertising of USD 1,000, and a commission of 5 per cent of the selling price to the employee selling the auto. Compute the amount at which the auto should be carried in inventory.

Exercise N Pure Sound Systems used one sound system as a floor model. It cost USD 3,600 and had an original selling price of USD 4,800. After six months, the sound system was damaged and replaced by a newer model. The sound system had an estimated selling price of USD 2,880, but when the company performed USD 480 in repairs, it could be sold for USD 3,840. Prepare the journal entry, if any, that must be made on Pure Sound's books to record the decline in market value.

Exercise O Your assistant has compiled the following data:

Item	Quantity (units)	Unit Cost	Unit Market	Total Cost	Total Market
A	300	$ 57.60	$ 55.20	$17,280	$16,560
B	300	28.80	33.60	8,640	10,080
C	900	21.60	21.60	19,440	19,440
D	500	12.00	13.20	6,000	6,600

Calculate the dollar amount of the ending inventory using the LCM method, applied on an item-by-item basis, and the amount of the decline from cost to lower-of-cost-or-market.

Exercise P Use the data in the previous exercise to compute the cost of the ending inventory using the LCM method applied to the total inventory.

Exercise Q Tilley-Mill Company takes a physical inventory at the end of each calendar-year accounting period to establish the ending inventory amount for financial statement purposes. Its financial statements for the past few years indicate an average gross margin on net sales of 25 per cent. On July 18, a fire destroyed the entire store building and its contents. The records in a fireproof vault were intact. Through July 17, these records show:

Merchandise inventory, January 1 USD 672,000

Merchandise purchases USD 9,408,000

Purchase returns USD 134,400

Transportation-in USD 504,000

Sales USD 14,336,000

Sales returns USD 672,000

The company was fully covered by insurance and asks you to determine the amount of its claim for loss of merchandise.

Exercise R Ryan Company takes a physical inventory at the end of each calendar-year accounting period. Its financial statements for the past few years indicate an average gross margin on net sales of 30 per cent.

On June 12, a fire destroyed the entire store building and the inventory. The records in a fireproof vault were intact. Through June 11, these records show:

Merchandise inventory, January 1	$120,000
Merchandise purchases	$3,000,000
Purchase returns	$36,000
Transportation -in	$204,000
Sales	$3,720,000

The company was fully covered by insurance and asks you to determine the amount of its claim for loss of merchandise.

Exercise S Victoria Falls Company, Inc., records show the following account balances for the year ending 2010 December 31:

	Cost	**Retail**
Beginning inventory	USD 42,000	USD 57,500
Purchases	25000	37500
Transportation-in	500	
Sales		52500

Using these data, compute the estimated cost of ending inventory using the retail method of inventory valuation.

8.8.4.5 Problems

Problem A Kelley Company reported net income of USD 358,050 for 2009, USD 371,400 for 2010, and USD 325,800 for 2011, using the incorrect inventory amounts shown for 2009 December 31, and 2010. Recently, Kelley corrected the inventory amounts for those dates. Kelley used the correct 2011 December 31, inventory amount in calculating 2011 net income.

	Incorrect	**Correct**
2009 December 31	USD 72,600	USD 86,200
2010 December 31	84000	70200

Prepare a schedule that shows: (a) the reported net income for each year, (b) the amount of correction needed for each year, and (c) the correct net income for each year.

Problem B An examination of the financial records of Lanal Company on 2009 December 31, disclosed the following with regard to merchandise inventory for 2009 and prior years:

2005 December 31, inventory was correct.

2006 December 31, inventory was overstated USD 200,000.

2007 December 31, inventory was overstated USD 100,000.

2081 December 31, inventory was understated USD 220,000.

2009 December 31, inventory was correct.

The reported net income for each year was:

2006	$384,000
2007	544,000
2008	670,000
2009	846,000

a. Prepare a schedule of corrected net income for each of the four years, 2006-2009.

b. What error(s) would have been included in each December 31 balance sheet? Assume each year's error is independent of the other years' errors.

c. Comment on the implications of your corrected net income as contrasted with reported net income.

Problem C Brett Company sells personal computers and uses the specific identification method to account for its inventory. On 2010 November 30, the company had 46 Orange III personal computers on hand that were acquired on the following dates and at these stated costs:

	Units		Unit cost
July 3	10	@	$10,080
September 10	20	@	$ 9,600
November 29	16	@	$10,700

Brett sold 36 Orange III computers at USD 12,720 each in December. There were no purchases of this model in December.

a. Compute the gross margin on December sales of Orange III computers assuming the company shipped those units that would maximize reported gross margin.

b. Repeat part (a) assuming the company shipped those units that would minimize reported gross margin for December.

c. In view of your answers to parts (a) and (b), what would be your reaction to an assertion that the specific identification method should not be considered an acceptable method for costing inventory?

Problem D The inventory records of Thimble Company show the following:

March 1 Beginning inventory consists of 10 units costing USD 40 per unit.

3 Sold 5 units at USD 94 per unit.

10 Purchased 16 units at USD 48 per unit.

12 Sold 8 units at USD 96 per unit.

20 Sold 7 units at USD 96 per unit.

25 Purchased 16 units at USD 50 per unit.

31 Sold 8 units at USD 96 per unit.

Assume all purchases and sales are made on credit.

Using FIFO perpetual inventory procedure, prepare the appropriate journal entries for March.

Problem E The following purchases and sales for Ripple Company are for April 2010. There was no inventory on April 1.

	Purchases			Sales	
	Units		Unit Cost		Units
April 3	3,200	@	$33.00	April 6	1,500
April 10	1,600	@	34.00	April 12	1,400
April 22	2,000	@	35.00	April 25	2,300
April 28	1,800	@	36.00		

a. Compute the ending inventory as of 2010 April 30, using perpetual inventory procedure, under each of the following methods: (1) FIFO, (2) LIFO, and (3) weighted-average (carry unit cost to four decimal places and round total cost to nearest dollar).

b. Repeat a using periodic inventory procedure.

Problem F Refer to the data in problem E

a. Using LIFO perpetual inventory procedure, prepare the journal entries for the purchases and sales (Cost of Goods Sold entry only).

b. Repeat (a) using LIFO periodic inventory procedure, including closing entries. (Note: You may want to refer to the Appendix in Chapter 6 for this part.)

Problem G The following data relate to the beginning inventory, purchases, and sales of Braxton Company for the year 2010:

	Units		Unit Cost
Merchandise Inventory, January 1	1,400	@	$5.04
Purchases:			
February 2	1,000	@	4.80
April 5	2,000	@	3.60
June 15	1,200	@	3.00
September 30	1,400	@	2.88
November 28	1,800	@	4.20
Sales:			
March 10	900		
May 15	1,800		
July 6	800		
August 23	600		
December 22	2,500		

a. Assuming use of perpetual inventory procedure, compute the ending inventory and cost of goods sold under each of the following methods: (1) FIFO, (2) LIFO, and (3) weighted-average (carry unit cost to four decimal places and round total cost to nearest dollar).

b. Repeat (a) assuming use of periodic inventory procedure.

Problem H Welch Company accounts for a product it sells using LIFO periodic inventory procedure. Product data for the year ended 2009 December 31, are shown below. Merchandise inventory on January 1 was 3,000 units at USD 14.40 each.

	Purchases				Sales		
	Units		Unit Cost		Units		Unit Co st
January 5	6,000	@	$18.00	January 10	4,000	@	$28.80
March 31	18,000	@	21.60	April 2	15,000	@	32.40
August 12	12,000	@	27.00	August 22	16,000	@	36.00
December 26	6,000	@	28.80	December 24	3,000	@	39.60

a. Compute the gross margin earned on sales of this product for 2009.

b. Repeat part (a) assuming that the December 26 purchase was made in January 2010.

c. Recompute the gross margin assuming that 10,000 rather than 6,000 units were purchased on December 26 at the same cost per unit.

d. Solve parts (a), (b), and (c) using the FIFO method.

Problem I The accountant for Gentry Company prepared the following schedule of the company's inventory at 2009 December 31, and used the LCM method applied to total inventory in determining cost of goods sold:

Item	Quantity	Unit Cost	Unit Market
Q	4,200	$7.20	$7.20
R	2,400	6.00	5.76
S	5,400	4.80	4.56
T	4,800	4.20	4.32

a. State whether this approach is an acceptable method of inventory measurement and show the calculations used to determine the amounts.

b. Compute the amount of the ending inventory using the LCM method on an item-by-item basis.

c. State the effect on net income in 2009 if the method in (b) was used rather than the method referred to in (a).

Problem J As part of a loan agreement with a local bank, Brazos Company must present quarterly and cumulative income statements for the year 2009. The company uses periodic inventory procedure and marks its merchandise to sell at a price yielding a gross margin of 30 per cent. Selected data for the first six months of 2009 are as follows:

	First Quarter	Second Quarter
Sales	$248,000	$256,000
Purchases	160,000	184,000
Purchase returns and allowances	9,600	11,200
Purchase discounts	3,200	3,520
Sales returns and allowances	8,000	4,800
Transportation-in	8,000	8,320
Miscellaneous selling expenses	25,600	24,000
Miscellaneous administrative expenses	9,600	8,000

The cost of the physical inventory taken 2008 December 31, was USD 30,400.

a. Indicate how income statements can be prepared without taking a physical inventory at the end of each of the first two quarters of 2009.

b. Prepare income statements for the first quarter, the second quarter, and the first six months of 2009.

Cobb Company records show the following information for 2010:

	Cost	Retail
Sales		$350,400
Purchases	$2/0,000	420,000
Transportation-in	26,280	—
Merchandise inventory, January 1	12,000	1/,400
Purchase returns	15,120	18,600

Compute the estimated year-end inventory balance at cost using the retail method of estimating inventory.

8.8.4.6 Alternate problems

Alternate problem A Harris Company reported net income of USD 312,000 for 2009, USD 324,000 for 2010, and USD 348,000

Recently Harris corrected these inventory amounts. Harris used the correct 2011 December 31, inventory amount in calculating 2011 net income.

2009 December 31	$96,000	$108,000
2010 December 31	91,200	84,000

Prepare a schedule that shows: (a) the reported net income for each year, (b) the amount of correction needed for each year, and (c) the correct net income for each year.

Alternate problem B An examination of the financial records of Jersey Company on 2009 December 31, disclosed the following with regard to merchandise inventory for 2009 and prior years:

2008 December 31, inventory was correct.

2009 December 31, inventory was understated USD 50,000.

2010 December 31, inventory was overstated USD 35,000.

2011 December 31, inventory was understated USD 30,000.

2012 December 31, inventory was correct.

The reported net income for each year was:

2009	$292,500
2010	$355,000
2011	$382,500
2012	$350,000

a. Prepare a schedule of corrected net income for each of the four years, 2009-2012.

b. What errors would have been included in each December 31 balance sheet? Assume each year's error is independent of the other years' errors.

c. Comment on the implications of the corrected net income as contrasted with reported net income.

Alternate problem C High Surf Company sells the Ultra-Light model wind surfer and uses the specific identification method to account for its inventory. The Ultra-Lights are identical except for identifying serial numbers. On 2009 August 1, the company had three Ultra-Lights that cost USD 14,000 each in its inventory. During the month, the company purchased the following:

	Units		Unit cost
August 3	5	@	$13,000
August 17	6	@	$14,500
August 28	6	@	15,000

High Surf Company sold 13 Ultra-Lights in August at USD 20,000 each.

a. Compute the gross margin earned by the company in August if it shipped the units that would maximize gross margin.

b. Repeat part (a) assuming the company shipped the units that would minimize gross margin.

c. Do you think High Surf Company should be permitted to use the specific identification method of accounting for Ultra-Lights in view of the manipulation possible as shown by your calculations in (a) and (b)?

Alternate problem D The inventory records of Coral Company show the following:

Jan. 1 Beginning inventory consists of 12 units costing USD 48 per unit.

5 Purchased 15 units @ USD 49.92 per unit.

10 Sold 9 units @ USD 108 per unit.

12 Sold 7 units @ USD108 per unit.

20 Purchased 20 units @ USD 50.16 per unit.

22 Purchased 5 units @ USD 48 per unit.

30 Sold 20 units @ USD 110.40 per unit.

Assume all purchases and sales are made on account.

a. Using FIFO perpetual inventory procedure, compute cost of goods sold for January.

b. Using FIFO perpetual inventory procedure, prepare the journal entries for January.

c. Compute the cost of goods sold under FIFO periodic inventory procedure. Is there a difference between the amount computed using the two different procedures?

Alternate problem E Following are data for Dandy Company for the year 2010:

	Units		Unit Cost
Merchandise Inventory, January 1	*700*	*@*	*$20.40*
Purchases:			
February 2	*500*	*@*	*21.00*
		@	
April 5	*1,000*		*24.00*
June 1 5	*600*	*@*	*2/.00*
September 30	*700*	*@*	*30.00*
November 28	*900*	*@*	*31.20*
	4,400		
Sales:			
March 5	*400*		
July 18	*1,200*		
August 12	*800*		
October 15	*900*		
	3,300		

a. Compute the ending inventory as of 2010 December 31, assuming use of perpetual inventory procedure, under each of the following methods: (1) FIFO, (2) LIFO, and (3) weighted-average (carry unit cost to four decimal places and round total cost to nearest dollar).

b. Compute the ending inventory as of 2010 December 31, assuming use of periodic inventory procedure, under each of the following methods: (1) FIFO, (2) LIFO, and (3) weighted-average.

Alternate problem F Refer to the data in alternate problem E

a. Give the journal entries to record the purchases and sales (Cost of Goods Sold entry only) for the year under FIFO perpetual.

b. Give the journal entries to record the purchases for the year and necessary year-end entries to charge Income Summary with the cost of goods sold for the year under FIFO periodic. (Note: You may want to refer to the Appendix in Chapter 6 for this part.)

Alternate problem G Following are data related to a product of Coen Company for the year 2010:

	Units		Unit Cost
Merchandise Inventory, January 1	2,100	@	$12.60
Purchases:			
March 10	1,500	@	12.00
May 24	3,000	@	11.20
July 15	1,800	@	10.50
September 20	2,100	@	9.00
December 1	2,700	@	10.00
Sales:			
April 5	1,400		
June 13	2,900		
October 9	2,300		
November 21	1,700		

a. Assuming use of perpetual inventory procedure, compute the ending inventory and cost of goods sold under each of the following methods: (1) FIFO, (2) LIFO, and (3) weighted-average (carry unit cost to four decimal places and round total cost to nearest dollar).

b. Assuming use of periodic inventory procedure, compute the ending inventory and cost of goods sold under each of the following methods: (1) FIFO, (2), LIFO, and (3) weighted-average (carry unit cost to four decimal places and round total cost to nearest dollar).

Alternate problem H Star Company accounts for its inventory using the LIFO method under periodic inventory procedure. Data on purchases, sales, and inventory for the year ended 2009 December 31, are:

	Units		Unit Cost
Merchandise inventory, January 1	2,000	@	$20
Purchases:			
January /	5,000	@	24
July 7	10,000	@	28
December 21	6,000	@	32

During 2009, 16,000 units were sold for USD 1,280,000, leaving an inventory on 2009 December 31, of 7,000 units.

a. Compute the gross margin earned on sales during 2009.

b. Compute the change in gross margin that would have resulted if the purchase of December 21 had been delayed until 2010 January 6.

c. Recompute the gross margin assuming that 9,000 units rather than 6,000 units were purchased on December 21 at the same cost per unit.

d. Solve parts (a), (b), and (c) using the FIFO method.

Alternate problem I Data on the ending inventory of Jannis Company on 2009 December 31, are:

Item	Quantity	Unit Cost	Unit Market
1	8,400	$3.20	$3.12
2	16,800	2.88	3.04
3	5,600	2.80	2.88
4	14,000	3.84	3.60
5	11,200	3.60	3.68
6	2,800	3.04	2.88

a. Compute the ending inventory applying the LCM method to the total inventory.

b. Determine the ending inventory by applying the LCM method on an item-by-item basis.

Alternate problem J The sales and cost of goods sold for Lively Company for the past five years were as follows:

Year	Sales (net)	Cost of Goods Sold
2004	$ 9,984,960	$ 6,240,600
2005	10,794,240	6,746,400
2006	12,346,560	7,716,600
2007	11,926,080	7,272,000
2008	12,747,840	7,920,000

The following information is for the seven months ended 2009 July 31:

Sales	$7,748,000
Purchases	4,588,800
Purchase returns	28,800
Sales returns	173,760
Merchandise inventory, 2009 January 1	948,000

To secure a loan, Lively Company has been asked to present current financial statements. However, the company does not wish to take a complete physical inventory as of 2009 July 31.

a. Indicate how financial statements can be prepared without taking a complete physical inventory.

b. From the data given, compute the estimated inventory as of 2009 July 31.

Alternate problem K Apple Company's records contained the following inventory information:

	Cost	Retail
Sales		$420,000
Purchases	$396,000	582,000
Purchase returns	**8**,400	**12,000**
Transportation-in	10,800	—
Merchandise inventory January 1	21,600	**30**,000

8.8.5 Beyond the numbers—Critical thinking

Business decision case A Susan Green and Carol Lewis, were interested in starting part-time business activities to supplement their family incomes. Both heard a presentation by the manufacturer of an exercise device and decided to become a distributor of this exerciser. Green's sales territory is Cobb County, and Lewis's sales territory is Gwinnett County. Each owns her own business.

To induce Green and Lewis to become distributors, the manufacturer made price concessions on the first 1,000 units purchased. The manufacturer sold the first 200 units at USD 15 each, the next 300 at USD 18 per unit, and the next 500 at USD 19 per unit. After that, Green and Lewis had to pay USD 20 per unit.

During the first year, each bought 1,200 units; coincidentally, both sold exactly 950 units for USD 27 each. Green had USD 2,600 of selling expenses; Lewis incurred USD 1,700 of selling expenses. (Green's expenses were considerably higher because on December 28 she distributed 4,000 sales brochures to households in her territory at a cost of USD 800. The brochures stressed that people would want to take off the extra pounds gained during the holiday season; also, these exercisers were inexpensive and could be used at home.)

At the end of the year, both had to determine their net incomes. Green received a B in the accounting course she took at State University. She remembered the FIFO inventory method and plans to use it. Lewis knows nothing about inventory costing methods. However, her husband is acquainted with the LIFO inventory method used at the company where he works. He will help her compute the cost of the ending inventory and the cost of goods using LIFO.

a. Prepare income statements for Green and Lewis.

b. Which business has performed better? Explain why.

c. Determine the inventory turnovers for Green and Lewis.

Business decision case B Connie Dalton owns and operates a sporting goods store. On February 2 the store suffered extensive fire damage, and all of the inventory was destroyed. Dalton uses periodic inventory procedure and has the following information in her accounting records, which were undamaged:

Merchandise Inventory, January 1	$ 80,000
Purchases:	
January 8	32,000
January 20	48,000
January 30	64,000
Net Sales:	
During January	240,000
February 1 and 2	16,000

Dalton's gross margin rate on net sales has been 40 per cent for the past three years. Her insurance company offered to pay USD 56,000 to settle this inventory loss unless Dalton can show that she suffered a greater loss. She has asked you, her CPA, to help her in determining her loss.

Answer these questions: Based on your analysis, should Dalton settle for USD 56,000? If not, how can she show that she suffered a greater loss? What is your estimate of her loss?

Annual report analysis C Refer to the financial statements of The Limited in the Annual Report Appendix. Describe how inventory values are determined (see Footnote 1). Also, determine the inventory turnover ratio for 2000.

Ethics case – Writing experience D Respond in writing to the following questions based on the ethics case concerning Terry Dorsey:

a. Do you believe that Terry's scheme will work?

b. What would you do if you were Terry's accountant?

c. Comment on each of Terry's points of justification.

Group project E In teams of two or three students, interview the manager of a merchandising company. Inquire about inventory control methods, inventory costing methods, and any other information about the company's inventory procedures. As a team, write a memorandum to your instructor summarizing the results of the interview. The heading of the memorandum should include the date, to whom it is written, from whom, and the subject matter.

Group project F In a team of two or three students, locate and visit a nearby retail store that uses perpetual inventory procedure and a computerized inventory management system. Investigate how the system works by interviewing a knowledgeable person in the company. Write a report to your instructor and make a short presentation to the class on your findings.

Group project G With a small group of students, identify and visit a retail store that uses periodic inventory procedure and uses the retail inventory method for preparing interim (monthly or quarterly) financial reports. Discover how the retail inventory method is applied and how the end-of-year inventory amount is calculated. Write a report to your instructor summarizing your findings.

8.8.6 Using the Internet—A view of the real world

Visit the National Association of State Boards of Accountancy website at:

http://www.nasba.org

Find the address of the state board of accountancy in your state. Also check out some of the information provided at websites of other state boards by clicking on any sites that appear at the end of a listing for a particular state. In a report to your instructor, summarize what you learned about state boards at some of these sites.

Visit the Lexis-Nexis website at:

http://www.lexis-nexis.com

Determine the kinds of information that can be obtained at this site. Specifically, what kinds of products and services are available? What is the background of Lexis-Nexis? What pricing information is available for using its services? Write a report to your instructor summarizing your findings.

8.8.7 Answers to self-test

8.8.7.1 True-false

False. Overstated ending inventory results in an understatement of cost of goods sold and an overstatement of gross margin and net income.

True. The cost of goods sold consists of the earliest purchases at the lowest costs in a period of rising prices.

False. Under LCM, inventory is adjusted to market value only when the market (replacement) value is less than the cost.

True. The first step in the gross margin method is to estimate gross margin using the gross margin rate experienced in the past.

True. The cost/retail ratio is computed by dividing the cost of goods available for sale by the retail price of the goods available for sale.

False. Under perpetual procedure, the Cost of Goods Sold account is updated as sales occur.

8.8.7.2 Multiple-choice

b. The cost of ending inventory using FIFO consists of the most recent purchase:

$\text{Cost of ending inventory} = 3{,}400 \times \text{USD } 36 = \text{USD } 122{,}400$

c. The cost of goods sold using FIFO is:

$\text{Cost of goods available for sale} = (3{,}000 \times \text{USD } 30) + (5{,}000 \times \text{USD } 36) = \text{USD } 270{,}000$

$\text{Cost of goods sold} = \text{USD } 270{,}000 - \text{USD } 122{,}400 = \text{USD } 147{,}600$

a. The cost of ending inventory using LIFO is:

$(3{,}000 \times \text{USD } 30) + (400 \times \text{USD } 36) = \text{USD } 104{,}400$

d. The cost of goods sold using LIFO is:

$\text{USD } 270{,}000 - \text{USD } 104{,}400 = \text{USD } 165{,}600$

a. The cost of ending inventory using weighted-average cost is computed:

$\text{Unit cost} = \text{USD } 270{,}000 - 8{,}000 = \text{USD } 33.75$

$\text{Cost of ending inventory} = 3{,}400 \text{ X USD } 33.75 = \text{USD } 114{,}750$

c. The cost of goods sold using weighted-average cost is:

$\text{USD } 270{,}000 - \text{USD } 114{,}750 = \text{USD } 155{,}250$

b. During a period of rising prices, FIFO results in the lowest cost of goods sold, thus the highest net income.

EXHIBIT 12

THE LIMITED, INC. AND SUBSIDIARIES
RATIO OF EARNINGS TO FIXED CHARGES
(Thousands)

	Year Ended				
	February 3, 2001	January 29, 2000	January 30, 1999	January 31, 1998	February 1, 1997
Adjusted Earnings					
Pretax earnings	$758,905	$831,759	$2,351,494	$390,653	$675,088
Portion of minimum rent ($653,820 in 2000, $671,960 in 1999, $689,240 in 1998, $738,487 in 1997, and $712,258 in 1996) representative of interest	217,940	223,987	229,747	246,162	237,419
Interest on indebtedness	58,244	78,297	68,528	68,728	75,363
Minority interest	69,345	72,623	63,616	55,610	45,466
Total earnings as adjusted	$1,104,434	$1,206,666	$2,713,385	$761,153	$1,033,336
Fixed Charges					
Portion of minimum rent representative of interest	$217,940	$223,987	$229,747	$246,162	$237,419
Interest on indebtedness	58,244	78,297	68,528	68,728	75,363
Total fixed charges	$276,184	$302,284	$298,275	$314,890	$312,782
Ratio of earnings to fixed charges	4.00x	3.99x	9.10x	2.42x	3.30x

6 FINANCIAL SUMMARY

(Millions except per share amounts, ratios and store and associate data)

Summary of Operations	@ 2000	* 1999	* 1998	1997	1996	*+@ 1995	1994
Net sales	$ 10,105	$ 9,766	$ 9,365	$ 9,200	$ 8,652	$ 7,893	$ 7,321
Gross income	$ 3,437	$ 3,323	$ 2,940	$ 2,736	$ 2,424	$ 2,033	$ 2,108
Operating income	# $ 866	# $ 931	# $ 2,424	# $ 469	# $ 636	# $ 612	$ 796
Operating income as a percentage of sales	# 8.6%	# 9.5%	# 25.9%	# 5.1%	# 7.4%	# 7.8%	10.9%
Net income	/\ $ 428	/\ $ 461	/\ $ 2,046	/\ $ 212	/\ $ 434	/\ $ 961	$ 447
Net income as a percentage of sales	/\ 4.2%	/\ 4.7%	/\ 21.9%	/\ 2.3%	/\ 5.0%	/\ 12.2%	6.1%
Per Share Results							
Basic net income	/\ $ 1.00	/\ $ 1.05	/\ $ 4.25	/\ $ 0.39	/\ $ 0.78	/\ $ 1.35	$ 0.63
Diluted net income	/\ $ 0.96	/\ $ 1.00	/\ $ 4.15	/\ $ 0.39	/\ $ 0.77	/\ $ 1.34	$ 0.63
Dividends	$ 0.30	$ 0.30	$ 0.26	$ 0.24	$ 0.20	$ 0.20	$ 0.18
Book value	$ 5.44	$ 5.00	$ 4.78	$ 3.64	$ 3.45	$ 4.43	$ 3.78
Weighted average diluted shares outstanding	443	456	493	549	564	717	717
Other Financial Information							
Total assets	$ 4,088	$ 4,126	$ 4,550	$ 4,301	$ 4,120	$ 5,267	$ 4,570
Return on average assets	/\ 10%	/\ 11%	/\ 46%	/\ 5%	/\ 9%	/\ 20%	10%
Working capital	$ 1,068	$ 1,049	$ 1,127	$ 1,001	$ 712	$ 1,962	$ 1,694
Current ratio	2.1	1.8	2.0	2.0	1.9	3.3	3.0
Capital expenditures	$446	$ 375	$ 347	$ 363	$ 361	$ 374	$ 320
Long-term debt	$400	$ 400	$ 550	$ 650	$ 650	$ 650	$ 650
Debt-to-equity ratio	17%	19%	25%	33%	35%	21%	24%
Shareholders' equity	$ 2,316	$ 2,147	$ 2,167	$ 1,986	$ 1,869	$ 3,148	$ 2,705
Return on average shareholders' equity	/\ 19%	/\ 21%	/\ 99%	/\ 11%	/\ 17%	/\ 33%	17%
Comparable store sales increase (decrease)	5%	9%	6%	0%	3%	(2%)	(3%)
Stores and Associates at End of Year							
Total number of stores open	5,129	5,023	5,382	5,640	5,633	5,298	4,867
Selling square feet	23,224	23,592	26,316	28,400	28,405	27,403	25,627
Number of associates	123,700	114,600	126,800	131,000	123,100	106,900	105,600

Summary of Operations	* 1993	1992	+ 1991	1990
Net sales	$ 7,245	$ 6,944	$ 6,149	$ 5,254
Gross income	$ 1,959	$ 1,991	$ 1,794	$ 1,630
Operating income	# $702	$ 789	$ 713	$ 698
Operating income as a percentage of sales	# 9.7%	11.4%	11.6%	13.3%
Net income	/\ $ 391	/\ $ 455	$ 403	$ 398
Net income as a percentage of sales	/\ 5.4%	/\ 6.6%	6.6%	7.6%
Per Share Results				
Basic net income	/\ $ 0.55	/\ $ 0.63	$ 0.56	$ 0.56
Diluted net income	/\ $ 0.54	/\ $ 0.63	$ 0.56	$ 0.55
Dividends	$ 0.18	$ 0.14	$ 0.14	$ 0.12
Book value	$ 3.41	$ 3.13	$ 2.60	$ 2.17
Weighted average diluted shares outstanding	726	727	727	724
Other Financial Information				
Total assets	$ 4,135	$ 3,846	$ 3,419	$ 2,872
Return on average assets	/\ 10%	/\ 13%	13%	15%
Working capital	$ 1,513	$ 1,063	$ 1,084	$ 884
Current ratio	3.1	2.5	3.1	2.8
Capital expenditures	$ 296	$ 430	$ 523	$ 429
Long-term debt	$ 650	$ 542	$ 714	$ 540
Debt-to-equity ratio	27%	24%	38%	35%
Shareholders' equity	$ 2,441	$ 2,268	$1,877	$ 1,560
Return on average shareholders' equity	/\ 17%	/\ 22%	23%	28%
Comparable store sales increase (decrease)	(1%)	2%	3%	3%
Stores and Associates at End of Year				
Total number of stores open	4,623	4,425	4,194	3,760
Selling square feet	24,426	22,863	20,355	17,008
Number of associates	97,500	100,700	83,800	72,500

@ Fifty-three-week fiscal year.

* Includes the results of the following companies disposed of up to their separation date: 1) Galyan's Trading Co. ("Galyan's") effective August 31, 1999; 2) Limited Too ("TOO") effective August 23, 1999; 3) Abercrombie & Fitch ("A&F") effective May 19, 1998; 4) Alliance Data Systems effective January 31, 1996; and 5) Brylane, Inc. effective August 31, 1993.

\+ Includes the results of Galyan's and Gryphon subsequent to their acquisitions on July 2, 1995 and June 1, 1991.

\# Operating income includes the net effect of special and nonrecurring items

of ($9.9) million in 2000, $23.5 million in 1999 and $1.740 billion in 1998 (see Note 2 to the Consolidated Financial Statements), ($213.2) million in 1997, ($12.0) million in 1996, $1.3 million in 1995 and $2.6 million in 1993. Inventory liquidation charges of ($13.0) million related to Henri Bendel store closings are also included in 1997.

/\ In addition to the items discussed in C above, net income includes the effect of the following gains: 1) $11.0 million related to Galyan's in 1999; 2) $8.6 million related to Brylane, Inc. in 1997; 3) $118.2 million related to A&F in 1996; 4) $649.5 million related to Intimate Brands, Inc. in 1995; and 5) $9.1 million related to United Retail Group in 1992.

Note: Amounts for fiscal years 1995-1999 reflect the reclassification of catalog shipping and handling revenues and costs and associate discounts (see Note 1 to the Consolidated Financial Statements).

MANAGEMENT'S DISCUSSION AND ANALYSIS

Results of Operations

Net sales for the fourteen-week fourth quarter of 2000 were $3.522 billion, a 7% increase from $3.296 billion for the thirteen-week fourth quarter of 1999. Comparable store sales increased 2% for the quarter. Gross income decreased 1% to $1.277 billion in the fourth quarter of 2000 from $1.291 billion in 1999 and operating income decreased 23% to $477.5 million from $619.1 million in 1999. Net income was $238.1 million in the fourth quarter of 2000 versus $316.5 million in 1999, and earnings per share were $0.54 versus $0.70 in 1999.

Net sales for the fifty-three-week year ended February 3, 2001 were $10.105 billion, a 3% increase from $9.766 billion for the fifty-two-week year ended January 29, 2000. Gross income increased 3% to $3.437 billion in 2000 from $3.323 billion in 1999 and operating income was $866.1 million in 2000 versus $930.8 million in 1999. Net income for 2000 was $427.9 million, or $0.96 per share, compared to $460.8 million, or $1.00 per share, last year.

There were a number of items in 2000 and 1999 that impacted the comparability of the Company's reported financial results. See the "Special and Nonrecurring Items" and "Other Data" sections herein for a discussion of these items.

The following summarized financial data compares reported 2000 results to the comparable periods for 1999 and 1998 (millions):

				% Change	
Net Sales	* 2000	1999	1998	2000-1999	1999-1998
Express	$ 1,594	$ 1,367	$ 1,322	17%	3%
Lerner New York	1,025	1,001	929	2%	8%
Lane Bryant	930	922	922	1%	-
Limited Stores	673	704	746	(4%)	(6%)
Structure	569	607	599	(6%)	1%
Other (principally Mast)	158	108	71	46%	52%
Total apparel businesses	$ 4,949	$ 4,709	$ 4,589	5%	3%
Victoria's Secret Stores	2,339	2,122	1,816	10%	17%
Bath & Body Works	1,785	1,530	1,254	17%	22%
Victoria's Secret Direct	962	956	894	1%	7%
Other	31	24	25	29%	(4%)
Total Intimate Brands	$ 5,117	$ 4,632	$ 3,989	10%	16%
Henri Bendel	39	38	39	3%	(3%)
Galyan's (through August 31,1999)	-	165	220	nm	nm
TOO (through August 23, 1999)	-	222	375	nm	nm
A&F (through May 19, 1998)	-	-	153	nm	nm
Total net sales	$ 10,105	$ 9,766	$ 9,365	3%	4%

Operating Income					
Apparel businesses	$ 123	$ 132	$ (45)	(7%)	393%
Intimate Brands	754	794	671	(5%)	18%
Other	(1)	(19)	58	nm	nm
Subtotal	876	907	684	(3%)	33%
Special and nonrecurring items @	(10)	24	1,740		
Total operating income	$ 866	$ 931	$ 2,424		

* Fifty-three-week fiscal year.

@ Special and nonrecurring items--
2000: a $9.9 million charge for Intimate Brands to close Bath & Body Works' nine stores in the United Kingdom.
1999: 1) a $13.1 million charge for transaction costs related to the TOO spin-off; and 2) the reversal of a $36.6 million liability related to downsizing costs for Henri Bendel. These special items relate to the "Other" category.
1998: 1) a $1.651 billion tax-free gain on the split-off of A&F; 2) a $93.7 million gain from the sale of the Company's remaining interest in Brylane; and 3) a $5.1 million charge for severance and other associate termination costs related to the closing of Henri Bendel stores. These special items relate to the "Other" category.

nm not meaningful

The following summarized financial data compares reported 2000 results to the comparable periods for 1999 and 1998:

Comparable Store Sales	2000	1999	1998
Express	15%	5%	16%
Lerner New York	4%	12%	5%
Lane Bryant	2%	5%	5%
Limited Stores	5%	5%	1%
Structure	(4%)	4%	(8%)
Total apparel businesses	6%	6%	5%
Victoria's Secret Stores	5%	12%	4%
Bath & Body Works	1%	11%	7%
Total Intimate Brands	4%	12%	5%
Henri Bendel	(1%)	7%	(12%)
Galyan's (through August 31, 1999)	-	9%	5%
TOO (through August 23, 1999)	-	9%	15%
A&F (through May 19, 1998)	-	-	48%
Total comparable store sales	5%	9%	6%

				% Change	
Store Data	2000	1999	1998	2000-1999	1999-1998
Retail sales increase (decrease) due to net new (closed) and remodeled stores					
Apparel businesses	(4%)	(4%)	(3%)		
Intimate Brands	7%	7%	7%		
Retail sales per average selling square foot					
Apparel businesses	$ 290	$ 258	$ 234	12%	10%
Intimate Brands	$ 601	$ 596	$ 552	1%	8%
Retail sales per average store (thousands)					
Apparel businesses	$ 1,696	$ 1,516	$1,368	12%	11%
Intimate Brands	$ 1,833	$ 1,826	$1,705	-	7%
Average store size at end of year (selling square feet)					
Apparel businesses	5,823	5,869	5,864	(1%)	-
Intimate Brands	3,032	3,064	3,066	(1%)	-
Selling square feet at end of year (thousands)					
Apparel businesses	15,943	17,091	18,517	(7%)	(8%)
Intimate Brands	7,246	6,466	5,794	12%	12%

	Apparel and Other Businesses			Intimate Brands		
Number of Stores	2000	1999	1998	2000	1999	1998
Beginning of year	2,913	3,492	3,930	2,110	1,890	1,710

Opened	25	54	50	305	241	201
Closed	(199)	(280)	(329)	(25)	(21)	(21)
Businesses disposed of						
Galyan's	-	(18)	-	-	-	-
TOO	-	(335)	-	-	-	-
A&F	-	-	(159)	-	-	-
End of year	2,739	2,913	3,492	2,390	2,110	1,890

Net Sales
Fourth Quarter

Net sales for the fourteen-week fourth quarter of 2000 increased 7% to $3.522 billion from $3.296 billion for the thirteen-week fourth quarter of 1999. The increase was due to the net addition of 106 stores in fiscal year 2000, the inclusion of sales for the fourteenth week and a comparable store sales increase of 2%.

At Intimate Brands ("IBI"), net sales for the fourth quarter of 2000 increased 5% to $1.938 billion from $1.838 billion in 1999. The increase was due to the net addition of 280 new stores in fiscal year 2000 and the inclusion of sales for the fourteenth week. These factors were partially offset by a 3% decrease in comparable store sales and a 9% decrease in sales at Victoria's Secret Direct. These declines were the result of a difficult holiday season and a promotional retail environment. At the apparel retail businesses, net sales for the fourth quarter of 2000 increased 8% to $1.524 billion from $1.407 billion in 1999. The increase was due to a 7% increase in comparable store sales and the inclusion of sales for the fourteenth week, partially offset by the net closure of 174 stores in fiscal year 2000.

Net sales of $3.296 billion for the fourth quarter of 1999 increased 1% over 1998. A comparable store sales increase of 5% was partially offset by the loss of sales from Galyan's Trading Co. ("Galyan's") following the third party purchase of a 60% majority interest effective August 31, 1999, and from the loss of Limited Too ("TOO") sales after its August 23, 1999 spin-off.

At IBI, net sales for the fourth quarter of 1999 increased 18% to $1.838 billion from $1.558 billion in 1998. The increase was due to an 11% increase in comparable store sales, the net addition of 220 new stores in fiscal year 1999 and a 14% increase in sales at Victoria's Secret Direct. At the apparel retail businesses, net sales for the fourth quarter of 1999 decreased 3% to $1.407 billion from $1.454 billion in 1998. The decrease was due to the net closure of 246 stores in fiscal year 1999, partially offset by a 1% increase in comparable store sales.

Full Year

Net sales for the fifty-three-week fiscal year 2000 were $10.105 billion compared to $9.766 billion for the fifty-two-week fiscal year 1999. Sales increased due to a 5% comparable store sales increase, the net addition of 106 new stores and, to a small extent, the inclusion of sales for the fifty-third week. These gains were partially offset by the loss of sales from Galyan's and TOO.

In 2000, IBI sales increased 10% to $5.117 billion from $4.632 billion in 1999. The increase was primarily due to the net addition of 280 new stores and a 4% increase in comparable store sales. Bath & Body Works led IBI with sales increasing 17% to $1.785 billion from $1.530 billion in 1999, primarily due to the net addition of 218 new stores (549,000 selling square feet). Victoria's Secret Stores' sales increased 10% to $2.339 billion from $2.122 billion in 1999. The sales increase was primarily due to a 5% increase in comparable store sales and the net addition of 62 new stores (231,000 selling square feet). Sales at Victoria's Secret Direct increased 1% to $962.4 million from $956.0 million in 1999.

The apparel businesses reported a retail sales increase of 4% to $4.791

billion from $4.601 billion in 1999. The sales increase was primarily due to a 6% comparable store sales increase, partially offset by the net closure of 174 stores (1.1 million selling square feet).

Net sales for the year were $9.766 billion in 1999 compared to $9.365 billion in 1998. The increase was due to a 9% comparable store sales increase that was partially offset by the net closure of stores in the apparel segment and the loss of sales from Galyan's, TOO and Abercrombie & Fitch ("A&F") subsequent to its May 19, 1998 split-off.

In 1999, IBI sales increased 16% to $4.632 billion from $3.989 billion in 1998, due to a 12% increase in comparable store sales, the net addition of 220 new stores and a 7% increase in sales at Victoria's Secret Direct. Bath & Body Works led IBI with a 22% sales increase to $1.530 billion. The sales increase was primarily due to the net addition of 153 new stores (398,000 selling square feet), as well as an 11% increase in comparable store sales. Victoria's Secret Stores' sales increased 17% to $2.122 billion. The sales increase was primarily due to a 12% increase in comparable store sales and the net addition of 67 new stores (274,000 selling square feet). Sales at Victoria's Secret Direct increased 7% to $956.0 million in 1999. The sales increase was due to an increased response rate, higher sales per catalog page and increased e-commerce sales through www.VictoriasSecret.com.

In 1999, the apparel businesses reported a retail sales increase of 2% to $4.601 billion from $4.517 billion in 1998. The sales increase was primarily due to a 6% comparable store sales increase. All apparel businesses reported comparable store sales increases, led by Lerner New York, which reported an increase of 12%. The effect of these increases on total sales was partially offset by the net closure of 246 apparel stores (1.4 million selling square feet).

Gross Income
Fourth Quarter

For the fourth quarter of 2000, the gross income rate (expressed as a percentage of sales) decreased to 36.3% from 39.2% for the same period in 1999. The rate decrease was primarily due to a decrease in the merchandise margin rate as a result of higher markdowns to clear slower selling inventory assortments during and after a highly promotional holiday season. Additionally, a slight increase in the buying and occupancy expense rate resulted from an increase at IBI that was partially offset by the positive impact of closing underperforming stores at the apparel businesses.

For the fourth quarter of 1999, the gross income rate increased to 39.2% from 35.3% for the same period in 1998. The rate increase was principally due to an increase in the merchandise margin rate and a slight decrease in the buying and occupancy expense rate. The increase in the merchandise margin rate was primarily due to improved inventory management and merchandising strategies. The buying and occupancy expense rate decrease was a result of sales leverage at IBI and the positive impact of closing underperforming stores at the apparel businesses.

Full Year

In 2000, the gross income rate was 34.0%, unchanged from 1999, as a decrease in the merchandise margin rate was offset by an improvement in the buying and occupancy expense rate. The decrease in the merchandise margin rate was primarily due to higher markdowns, principally in the fourth quarter. The overall buying and occupancy expense rate improvement was a result of the benefit from store closings at the apparel businesses, which more than offset a slight increase in the buying and occupancy expense rate at IBI.

In 1999, the gross income rate increased to 34.0% from 31.4% in 1998. The rate increase was due to an increase in the merchandise margin rate and a decrease in the buying and occupancy expense rate. The increase in the

merchandise margin rate was primarily due to improved inventory management and merchandising strategies at the apparel businesses. The buying and occupancy expense rate decrease was a result of sales leverage at IBI and the benefit from store closings at the apparel businesses.

General, Administrative and Store Operating Expenses
Fourth Quarter

For the fourth quarter of 2000, the general, administrative and store operating expense rate (expressed as a percentage of sales) increased to 22.5% from 21.5% in 1999. The increase was primarily due to a rate increase at IBI from increased investments in store selling at Bath & Body Works and Victoria's Secret Stores in anticipation of the normal holiday sales peak. These investments were not fully leveraged due to a 3% decrease in comparable store sales. The IBI rate increase was offset by sales leverage at the apparel businesses from a 7% comparable store sales increase.

For the fourth quarter of 1999, the general, administrative and store operating expense rate of 21.5% was essentially flat compared to 1998. Improved expense leverage at IBI was offset by a lack of sales leverage and investments in brand building activities at the apparel businesses.

Full Year

In 2000, the general, administrative and store operating expense rate increased to 25.3% from 24.7% in 1999. The increase was primarily due to a rate increase at IBI due to increased investments in store selling at Bath & Body Works and Victoria's Secret Stores. These investments were not fully leveraged in large part due to the difficult fourth quarter that resulted in a full year comparable store sales increase of only 4%. Additionally, Bath & Body Works has continued to expand into highly profitable non-mall locations, which typically have higher payroll costs as a percentage of sales.

In 1999, the general, administrative and store operating expense rate increased to 24.7% from 24.1% in 1998. The increase was primarily due to a rate increase at IBI due to: 1) investments in national advertising for Victoria's Secret, additional store staffing for product extensions, and new initiatives at Victoria's Secret Stores; and 2) a lack of sales leverage and investments in brand building activities at the apparel businesses.

Special and Nonrecurring Items

During the fourth quarter of 2000, the Company recorded a $9.9 million special and nonrecurring charge to close Bath & Body Works' United Kingdom stores. All nine stores are scheduled to close during the first quarter of 2001. The charge consisted of store and other asset write-offs of $4.9 million and accruals for lease termination and other costs of $5.0 million.

In 1999, the Company recognized a $13.1 million charge for transaction costs related to the TOO spin-off and a reversal of a $36.6 million liability related to downsizing costs for Henri Bendel, initially recognized as a special and nonrecurring charge to operating income in 1997. The execution of the plan to downsize the remaining Henri Bendel store in New York was primarily based on negotiations with the original landlord. However, a change in landlords ultimately resulted in the termination of negotiations during the fourth quarter of 1999, which prevented the completion of the original plan. As a result, the Company reversed the $36.6 million liability through the special and nonrecurring items classification.

On May 19, 1998, the Company completed a tax-free exchange offer to establish A&F as an independent company. A total of 94.2 million shares of The Limited's common stock were exchanged at a ratio of 0.86 of a share of A&F common stock for each Limited share tendered. In connection with the exchange, the Company recorded a $1.651 billion tax-free gain. This gain was measured based on the $21.81 per share market value of the A&F common stock at the expiration date of the exchange offer. The remaining 6.2 million A&F shares were distributed through a pro rata spin-off to Limited shareholders.

Also during 1998, the Company recognized a gain of $93.7 million from the sale of its remaining interest in Brylane. This gain was partially offset by a $5.1 million charge for severance and other associate termination costs related to the closing of five of six Henri Bendel stores. The severance charge was paid in 1998.

Operating Income
Fourth Quarter

The operating income rate in the fourth quarter of 2000 (expressed as a percentage of sales) decreased to 13.6% from 18.8% in 1999. Excluding special and nonrecurring items in 2000 and 1999, the fourth quarter operating income rate decreased to 13.8% in 2000 from 17.7% in 1999. The rate decrease was due to a 2.9% decline in the gross income rate and a 1.0% increase in the general, administrative and store operating expense rate.

The operating income rate in the fourth quarter of 1999 increased to 18.8% from 13.6% in 1998. Excluding the special and nonrecurring item in 1999, the fourth quarter operating income rate increased to 17.7% in 1999 from 13.6% in 1998. The rate increase was due to a 3.9% improvement in the gross margin rate, primarily driven by improvement at the apparel businesses.

Full Year

In 2000, the operating income rate was 8.6% versus 9.5% in 1999. Excluding special and nonrecurring items in both years, the operating income rate was 8.7% in 2000 versus 9.3% in 1999. The rate decrease was driven by a 0.6% increase in the general, administrative and store operating expense rate.

In 1999, the operating income rate was 9.5% versus 25.9% in 1998. Excluding special and nonrecurring items in both years, the operating income rate was 9.3% in 1999 versus 7.3% in 1998. The rate improvement was driven by a 2.6% increase in the gross income rate, which more than offset a 0.6% increase in the general, administrative and store operating expense rate.

Interest Expense

In 2000, the Company incurred $16.7 million and $58.2 million in interest expense for the fourth quarter and year, compared to $20.9 million and $78.3 million in 1999 for the same periods. These decreases were primarily the result of lower average borrowings during 2000, due to the maturity of $100 million in term debt in August 1999 and the Company's redemption of $300 million in floating rate notes between November 1999 and February 2000.

	Fourth Quarter		Year		
	2000	1999	2000	1999	1998
Average daily borrowings (millions)	$778	$969	$717	$970	$808
Average effective interest rate	7.6%	8.7%	7.9%	8.1%	8.5%

Other Income, Net

For the fourth quarter of 2000, other income (expense), net, was ($5.0) million versus $3.4 million in 1999. The decrease primarily relates to equity in losses of investees in 2000. For fiscal year 2000, other income was $20.4 million compared to $40.9 million in 1999. The decrease was due equally to a decline in interest income because of lower average invested cash balances and an increase in the equity in losses of investees. The decrease in average invested cash balances was a result of various financing activities in 2000 and 1999 (see "Liquidity and Capital Resources" section on page 9).

Gain on Sale of Subsidiary Stock

As discussed in Note 1 to the Consolidated Financial Statements, effective August 31, 1999, a third party purchased a 60% majority interest in Galyan's. As a result, the Company recorded a pretax gain on sale of subsidiary stock of $11 million, offset by a $6 million provision for taxes. In addition, the revised tax basis of the Company's remaining investment in Galyan's resulted in an additional $7 million deferred tax expense.

Other Data

The following adjusted income information gives effect to the significant transactions and events in 2000, 1999 and 1998 that impacted the comparability of the Company's results. These items are more fully described in the "Special and Nonrecurring Items" section included herein and in Note 2 to the Consolidated Financial Statements.

Management believes this presentation provides a reasonable basis on which to present the adjusted income information. Although the adjusted income information should not be construed as an alternative to the reported results determined in accordance with generally accepted accounting principles, it is provided to assist in investors' understanding of the Company's results of operations.

Adjusted Income Information
(Millions except per share amounts)

	2000			1999	
	Reported	Adjustments	Adjusted	Reported	Adjustments
Net sales	$ 10,105	-	$ 10,105	$ 9,766	$ (222)
Gross income	3,437	-	3,437	3,323	(74)
General, administrative and store operation expenses	(2,561)	-	(2,561)	(2,416)	67
Special and nonrecurring items, net	(10)	$ 10	-	24	(24)
Operating income	866	10	876	931	(31)
Interest expense	(58)	-	(58)	(78)	-
Other income, net	20	-	20	41	-
Minority interest	(69)	(1)	(70)	(73)	-
Gain on sale of subsidiary stock	-	-	-	11	(11)
Income before income taxes	759	9	768	832	(42)
Provision for income taxes	331	4	335	371	(26)
Net income	$ 428	$ 5	$ 433	$ 461	$ (16)
Net income per share	$ 0.96		$ 0.97	$ 1.00	
Weighted average shares outstanding	443		443	456	

		1998		
	Adjusted	Reported	Adjustments	Adjusted
Net sales	$ 9,544	$ 9,365	$ (528)	$ 8,837
Gross income	3,249	2,940	(177)	2,763
General, administrative and store operation expenses	(2,349)	(2,256)	136	(2,120)
Special and nonrecurring items, net	-	1,740	(1,740)	-
Operating, income	900	2,424	(1,781)	643
Interest expense	(78)	(69)	-	(69)
Other income, net	41	60	-	60
Minority interest	(73)	(64)	2	(62)
Gain on sale of subsidiary stock	-	-	-	-
Income before income taxes	790	2,351	(1,779)	572
Provision for income taxes	345	305	(51)	254
Net income	$ 445	$ 2,046	$ (1,728)	$ 318
Net income per share	$ 0.97	$ 4.15		$ 0.68
Weighted average shares outstanding	456	493		465

Notes to Adjusted Income Information

A) Excluded businesses

TOO and A&F results were excluded in determining adjusted results for 1999

and 1998 as a result of their spin-off on August 23, 1999 (TOO) and split-off on May 19, 1998 (A&F).

B) Special items

The following special items were excluded in determining adjusted results:

. In 2000, a $9.9 million charge to close Bath & Body Works' nine stores in the United Kingdom.

. In 1999, a $36.6 million reversal of a liability related to downsizing costs for Henri Bendel, an $11.0 million gain from the purchase by a third party of a 60% majority interest in Galyan's and a $13.1 million charge for transaction costs related to the TOO spin-off.

. In 1998, a $1.651 billion tax-free gain on the split-off of A&F, a $93.7 million gain from the sale of the Company's remaining interest in Brylane and a $5.1 million charge for severance and other associate termination costs at Henri Bendel.

C) Provision for income taxes

The tax effect of the adjustments for excluded businesses and special items was calculated using the Company's overall effective rate of 40%. Additionally, in 1999 the Company's $11.0 million pretax gain from the Galyan's transaction described above resulted in a $6.0 million provision for taxes, and the revised tax basis of the Company's remaining investment in Galyan's resulted in an additional $7.0 million deferred tax expense.

D) Weighted average shares outstanding

Total weighted average shares outstanding were reduced as of the beginning of 1998 by the 94.2 million Limited shares tendered in the A&F split-off transaction.

FINANCIAL CONDITION

Liquidity and Capital Resources

Cash provided by operating activities and funds available from commercial paper backed by bank credit agreements provide the resources to support current operations, projected growth, seasonal funding requirements and capital expenditures.

A summary of the Company's working capital position and capitalization follows (millions):

	2000	1999	1998
Cash provided by operating activities	$769	$599	$577
Working capital	$1,068	$1,049	$1,127
Capitalization			
Long-term debt	$400	$400	$550
Shareholders' equity	2,316	2,147	2,167
Total capitalization	$2,716	$2,547	$2,717
Additional amounts available under long-term credit agreements	$1,000	$1,000	$1,000

The Company considers the following to be relevant measures of liquidity and capital resources:

	2000	1999	1998

Debt-to-equity ratio (Long-term debt divided by shareholders' equity)	17%	19%	25%
Debt-to-capitalization ratio (Long-term debt divided by total capitalization)	15%	16%	20%
Interest coverage ratio (Income, excluding special and nonrecurring items and gain on sale of subsidiary stock, before interest expense, income taxes, depreciation and amortization divided by interest expense)	19x	15x	14x
Cash flow to capital investment (Net cash provided by operating activities divided by capital expenditures)	172%	159%	166%

The Company's operations are seasonal in nature and consist of two principal selling seasons: spring (the first and second quarters) and fall (the third and fourth quarters). The fourth quarter, including the holiday season, has accounted for 35%, 34% and 35% of net sales in 2000, 1999 and 1998. Accordingly, cash requirements are highest in the third quarter as the Company's inventory builds in anticipation of the holiday season, which generates a substantial portion of the Company's operating cash flow for the year.

Operating Activities

Net cash provided by operating activities, the Company's primary source of liquidity, was $769 million in 2000, $599 million in 1999 and $577 million in 1998.

The primary differences in cash provided by operating activities between 2000 and 1999 were due to changes in inventories, accounts payable, accrued expenses and income taxes. The cash used for inventories was higher in 2000 than 1999 because of relatively higher inventories at the apparel businesses at February 3, 2001. The net increase in accounts payable and accrued expenses versus 1999 related to higher inventories and timing of payments. The reduction in the change in income tax accruals primarily related to a 1999 payment of $112 million for taxes and interest related to an Internal Revenue Service assessment for previous year's taxes (see Note 6 to the Consolidated Financial Statements).

The primary differences in cash provided by operating activities between 1999 and 1998 were due to significant improvement in net income excluding special and nonrecurring items and changes in inventories and income taxes.

Investing Activities

In 2000, major investing activities included $446 million in capital expenditures (see "Capital Expenditures" section on page 10), and $22 million in net expenditures associated with the Easton project (see "Easton Real Estate Investment" section on page 10).

In 1999, investing activities included the following: 1) $352 million decrease in restricted cash related to the rescission of the Contingent Stock Redemption Agreement; 2) $182 million in proceeds from the third party purchase of a 60% majority interest in Galyan's and the sale of related property; 3) $375 million in capital expenditures; and 4) $11 million in net proceeds associated with the Easton project.

In 1998, major investing activities included $347 million in capital expenditures, $131 million in proceeds from the sale of the Company's remaining investment in Brylane, Inc. and $31 million in net proceeds associated with the Easton project.

Financing Activities

Financing activities in 2000 included repayment of $150 million of term debt,

redemption of the $100 million Series C floating rate notes and quarterly dividend payments of $0.075 per share or $128 million for the year. In addition, the Company repurchased 8.7 million shares of its common stock for $200 million. Finally, in 2000, IBI repurchased 8.8 million shares of its common stock for $198 million, of which 7.4 million shares were repurchased on a proportionate basis from The Limited for $167 million. The repurchase had no net cash flow impact to The Limited and did not change The Limited's 84% ownership interest in IBI.

Noncash financing activities in 2000 included a two-for-one stock split in the form of a stock dividend distributed on May 30, 2000 to shareholders of record on May 12, 2000. Shareholders' equity reflects the reclassification of an amount equal to the par value of the increase in issued common shares ($108 million) from paid-in capital to common stock. Also, in conjunction with the stock split, the Company retired 163.7 million treasury shares, representing $4.3 billion at cost. A noncash charge was made against retained earnings for the excess cost of treasury stock over its par value.

Financing activities in 1999 included proceeds of $300 million from floating rate notes, $200 million of which was repaid during the year, repayment of $100 million of term debt and quarterly dividend payments of $0.075 per share or $130 million for the year. The cash from the rescission of the Contingent Stock Redemption Agreement and other available funds were used to repurchase shares under a self-tender, which was funded June 14, 1999. A total of 30 million shares of the Company's common stock were repurchased at $25 per share, resulting in a cash outflow of $750 million plus transaction costs. Additionally, IBI completed a $500 million stock repurchase program that began in 1998 through the repurchase of 20.4 million shares of its common stock for $404 million, of which 17.2 million shares were repurchased on a proportionate basis from The Limited for $342 million. Financing activities also included a $50 million dividend and a $12 million repayment of advances to TOO in connection with its spin-off.

10 Financing activities in 1998 included three stock repurchases: one by the Company and two by IBI. First, to reduce the impact of dilution from the exercise of stock options, the Company used $43 million of proceeds from stock option exercises to repurchase 3.8 million shares of its common stock. Second, in January 1999, IBI initiated the $500 million stock repurchase program and repurchased 5.5 million shares of its common stock for $96 million, of which 4.6 million shares were repurchased on a proportionate basis from The Limited for $81 million. Finally, under a repurchase program completed in August 1998, IBI repurchased 9.4 million shares of its common stock from its public shareholders for $106 million. These repurchased shares were specifically reserved to cover shares needed for employee benefit plans. Other financing activities in 1998 included quarterly dividend payments of $0.065 per share or $124 million for the year, and the payment of $48 million to settle the A&F intercompany balance at May 19, 1998, the date of its split-off.

The Company has available $1 billion under its long-term credit agreement, none of which was used as of February 3, 2001. Borrowings under the agreement, if any, are due September 28, 2002. The Company also has the ability to offer up to $250 million of additional debt securities under its shelf registration statement.

STORES AND SELLING SQUARE FEET

A summary of stores and selling square feet by business follows:

	Plan 2001	End of Year 2000	1999	Change From 2001-2000	2000-1999
Express					
Stores	653	667	688	(14)	(21)
Selling square feet	4,172,000	4,288,000	4,429,000	(116,000)	(141,000)
Lerner New York					
Stores	515	560	594	(45)	(34)
Selling square feet	3,761,000	4,163,000	4,592,000	(402,000)	(429,000)
Lane Bryant					
Stores	652	653	688	(1)	(35)

Selling square feet	3,135,000	3,162,000	3,343,000	(27,000)	(181,000)
Limited Stores					
Stores	374	389	443	(15)	(54)
Selling square feet	2,326,000	2,445,000	2,749,000	(119,000)	(304,000)
Structure					
Stores	446	469	499	(23)	(30)
Selling square feet	1,782,000	1,885,000	1,978,000	(103,000)	(93,000)
Total apparel businesses					
Stores	2,640	2,738	2,912	(98)	(174)
Selling square feet	15,176,000	15,943,000	17,091,000	(767,000)	(1,148,000)
Victoria's Secret Stores					
Stores	1,019	958	896	61	62
Selling square feet	4,610,000	4,207,000	3,976,000	403,000	231,000
Bath & Body Works					
Stores	1,635	1,432	1,214	203	218
Selling square feet	3,544,000	3,039,000	2,490,000	505,000	549,000
Total Intimate Brands					
Stores	2,654	2,390	2,110	264	280
Selling square feet	8,154,000	7,246,000	6,466,000	908,000	780,000
Henri Bendel					
Stores	1	1	1	-	-
Selling square feet	35,000	35,000	35,000	-	-
Total retail businesses					
Stores	5,295	5,129	5,023	166	106
Selling square feet	23,365,000	23,224,000	23,592,000	141,000	(368,000)

Capital Expenditures

Capital expenditures amounted to $446 million, $375 million and $347 million for 2000, 1999 and 1998, of which $324 million, $277 million and $237 million were for new stores and for the remodeling of and improvements to existing stores. Remaining capital expenditures are primarily related to information technology, distribution centers and investments in intellectual property assets.

The Company anticipates spending $470 to $500 million for capital expenditures in 2001, of which $330 to $360 million will be for new stores and for the remodeling of and improvements to existing stores. Remaining capital expenditures are primarily related to information technology and distribution centers. The Company expects that 2001 capital expenditures will be funded principally by net cash provided by operating activities.

The Company expects to increase selling square footage by approximately 140,000 square feet in 2001. It is anticipated that the increase will result from the addition of approximately 300 to 340 stores (primarily within IBI), offset by the closing of approximately 150 stores (primarily within the apparel businesses).

Easton Real Estate Investment

The Company's real estate investments include Easton, a 1,200-acre planned community in Columbus, Ohio, that integrates office, hotel, retail, residential and recreational space. The Company's investments in partnerships, land and infrastructure within the Easton property were $74 million at February 3, 2001 and $54 million at January 29, 2000.

Included in these investments is a non-controlling interest in a partnership that owns and is developing the Easton Town Center, a commercial entertainment and shopping center. During 2000, the Company and its partners modified their agreement and the partnership borrowings in order to develop the "Fashion District" in the Easton Town Center. The partnership's principal funding source is a $189 million secured loan, $126 million of which was outstanding at February 3, 2001. The Company and one of its partners have guaranteed the first $75 million of this loan. The Company does not anticipate that it will be required to advance funds to the Easton Town Center partnership in order for the partnership to meet its debt service costs on these loans. The Company and one of its partners have also guaranteed the completion of the Fashion District and indemnified the lender against any environmental matters related to the Easton Town Center.

In 2000, Company cash expenditures for the Easton development totaled $30 million, including a loan to the partnership of $18 million, and the Company

received net sales and other proceeds totaling $8 million. In 1999 and 1998, the Company received net sales and other proceeds of $32 million and $65 million, which exceeded its cash expenditures of $21 million and $34 million.

Recently Issued Accounting Pronouncements

Statement of Financial Accounting Standards ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities," subsequently amended and clarified by SFAS No. 138, is effective for the Company's 2001 fiscal year. It requires that derivative instruments be recorded at fair value and that changes in their fair value be recognized in current earnings unless specific hedging criteria are met. The Company's use of derivatives is limited, and the adoption of SFAS No. 133 will not have a material impact on its consolidated financial statements.

Emerging Issues Task Force ("EITF") Issue No. 00-14, "Accounting for Certain Sales Incentives," will be effective in the second quarter of 2001 and addresses the accounting and classification of various sales incentives. The Company has determined that adopting the provisions of the EITF Issue will not have a material impact on its consolidated financial statements.

Market Risk

Management believes the Company's exposure to interest rate and market risk associated with financial instruments (such as investments and borrowings) is not material.

Impact of Inflation

The Company's results of operations and financial condition are presented based on historical cost. While it is difficult to accurately measure the impact of inflation due to the imprecise nature of the estimates required, the Company believes the effects of inflation, if any, on the results of operations and financial condition have been minor.

Safe Harbor Statement under the Private Securities
Litigation Reform Act of 1995

The Company cautions that any forward-looking statements (as such term is defined in the Private Securities Litigation Reform Act of 1995) contained in this Report or made by management of the Company involve risks and uncertainties and are subject to change based on various important factors, many of which may be beyond the Company's control. Accordingly, the Company's future performance and financial results may differ materially from those expressed or implied in any such forward-looking statements. The following factors, among others, in some cases have affected and in the future could affect the Company's financial performance and actual results and could cause actual results for 2001 and beyond to differ materially from those expressed or implied in any forward-looking statements included in this Report or otherwise made by management: changes in consumer spending patterns, consumer preferences and overall economic conditions, the impact of competition and pricing, changes in weather patterns, political stability, currency and exchange risks and changes in existing or potential duties, tariffs or quotas, postal rate increases and charges, paper and printing costs, the availability of suitable store locations at appropriate terms, the ability to develop new merchandise and the ability to hire and train associates. The Company does not undertake to publicly update or revise its forward-looking statements even if experience or future changes make it clear that any projected results expressed or implied therein will not be realized.

CONSOLIDATED STATEMENTS OF INCOME

(Thousands except per share amounts)	2000	1999	1998
Net sales	$10,104,606	$ 9,766,220	$ 9,364,750
Costs of goods sold, buying and occupancy	(6,667,389)	(6,443,063)	(6,424,725)

Gross income	3,437,217	3,323,157	2,940,025
General, administrative and store operating expenses	(2,561,201)	(2,415,849)	(2,256,332)
Special and nonrecurring items, net	(9,900)	23,501	1,740,030
Operating income	866,116	930,809	2,423,723
Interest expense	(58,244)	(78,297)	(68,528)
Other income, net	20,378	40,868	59,915
Minority interest	(69,345)	(72,623)	(63,616)
Gain on sale of subsidiary stock	-	11,002	-
Income before income taxes	758,905	831,759	2,351,494
Provision for income taxes	331,000	371,000	305,000
Net income	$ 427,905	$ 460,759	$ 2,046,494
Net income per share:			
Basic	$ 1.00	$ 1.05	$ 4.25
Diluted	$ 0.96	$ 1.00	$ 4.15

The accompanying Notes are an integral part of the Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(Thousands)

	Common Stock Shares Outstanding	Par Value	Paid-In Capital	Retained Earnings	Treasury Stock, at Average Cost	Total Shareholders' Equity
Balance, January 31, 1998	545,600	$180,352	$ 148,018	$3,553,982	$(1,896,587)	$ 1,985,765
Net income	-	-	-	2,046,494	-	2,046,494
Cash dividends	-	-	-	(124,203)	-	(124,203)
Repurchase of common stock	(3,780)	-	-	-	(43,095)	(43,095)
Split-off of Abercrombie & Fitch	(94,150)	-	-	(5,584)	(1,766,138)	(1,771,722)
Exercise of stock options and other	5,474	-	9,196	-	64,524	73,720
Balance, January 30, 1999	453,144	$180,352	$ 157,214	$5,470,689	$(3,641,296)	$ 2,166,959
Net income	-	-	-	460,759	-	460,759
Cash dividends	-	-	-	(130,449)	-	(130,449)
Repurchase of common stock, including transaction costs	(30,000)	-	-	-	(752,612)	(752,612)
Spin-off of Limited Too	-	-	-	(24,675)	-	(24,675)
Rescission of contingent stock redemption agreement	-	9,375	7,639	334,586	-	351,600
Exercise of stock options and other	6,784	-	13,521	(1,539)	63,513	75,495
Balance, January 29, 2000	429,928	$189,727	$ 178,374	$ 6,109,371	$(4,330,395)	$ 2,147,077
Net income	-	-	-	427,905	-	427,905
Cash dividends	-	-	-	(127,549)	-	(127,549)
Repurchase of common stock, including transaction costs	(8,746)	-	-	-	(199,985)	(199,985)
Retirement of treasury stock	-	(81,869)	-	(4,241,052)	4,322,921	-
Two-for-one stock split	-	107,858	(107,858)	-	-	-
Exercise of stock options and other	4,761	380	12,987	(806)	56,446	69,007
Balance, February 3, 2001	425,943	$216,096	$ 83,503	$ 2,167,869	$ (151,013)	$ 2,316,455

The accompanying Notes are an integral part of the Consolidated Financial Statement.

12 CONSOLIDATED BALANCE SHEETS

(Thousands)

Assets	February 3, 2001	January 29, 2000
Current assets		
Cash and equivalents	$ 563,547	$ 817,268
Accounts receivable	93,745	108,794
Inventories	1,157,140	1,050,913
Other	253,366	307,780
Total current assets	2,067,798	2,284,755
Property and equipment, net	1,394,619	1,229,612
Deferred income taxes	132,028	125,145
Other assets	493,677	486,655

Total assets	$4,088,122	$4,126,167
Liabilities and Shareholders' Equity		
Current liabilities		
Accounts payable	$ 273,021	$ 256,306
Current portion of long-term debt	-	250,000
Accrued expenses	581,584	538,310
Income taxes	145,580	190,936
Total current liabilities	1,000,185	1,235,552
Long-term debt	400,000	400,000
Other long-term liabilities	228,397	224,530
Minority interest	143,085	119,008
Shareholders' equity		
Common stock	216,096	189,727
Paid-in capital	83,503	178,374
Retained earnings	2,167,869	6,109,371
	2,467,468	6,477,472
Less: treasury stock, at average cost	(151,013)	(4,330,395)
Total shareholders' equity	2,316,455	2,147,077
Total liabilities and shareholders' equity	$4,088,122	$4,126,167

The accompanying Notes are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Thousands)			
Operating Activities	2000	1999	1998
Net income	$427,905	$460,759	$2,046,494
Adjustments to reconcile net income to net cash provided by (used for) operating activities:			
Depreciation and amortization	271,146	272,443	286,000
Special and nonrecurring items, net of income taxes	5,900	(13,501)	(1,705,030)
Minority interest, net of dividends paid	47,046	50,517	40,838
Loss on sale of subsidiary stock, net of income taxes	-	2,198	-
Change in Assets and Liabilities			
Accounts receivable	15,049	(36,775)	4,704
Inventories	(106,227)	(54,270)	(153,667)
Accounts payable and accrued expenses	52,989	(20,201)	45,580
Income taxes	(9,761)	(83,637)	25,895
Other assets and liabilities	65,048	21,208	(13,439)
Net cash provided by operating activities	769,095	598,741	577,375
Investing Activities			
Capital expenditures	(446,176)	(375,405)	(347,356)
Net proceeds (expenditures) related to Easton real estate investment	(22,485)	10,635	31,073
Net proceeds from sale of partial interest in subsidiary and investee	-	182,000	131,262
Decrease in restricted cash	-	351,600	-
Net cash provided by (used for) investing activities	(468,661)	168,830	(185,021)
Financing Activities			
Repayment of long-term debt	(250,000)	(300,000)	-
Proceeds from issuance of long-term debt	-	300,000	-
Repurchase of common stock, including transaction costs	(199,985)	(752,612)	(43,095)
Repurchase of Intimate Brands, Inc. common stock	(31,391)	(62,639)	(120,844)
Dividends paid	(127,549)	(130,449)	(124,203)
Dividend received from Limited Too	-	50,000	-
Settlement of Limited Too (1999) and Abercrombie & Fitch (1998) intercompany accounts	-	12,000	(47,649)

Proceeds from exercise of stock options and other	54,770	63,080	67,359
Net cash used for financing activities	(554,155)	(820,620)	(268,432)
Net increase (decrease) in cash and equivalents	(253,721)	(53,049)	123,922
Cash and equivalents, beginning of year	817,268	870,317	746,395
Cash and equivalents, end of year	$563,547	$817,268	$870,317

The accompanying Notes are an integral part of these Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies
Principles of Consolidation

The Limited, Inc. (the "Company") sells women's and men's apparel, women's intimate apparel and personal care products under various trade names through its specialty retail stores and direct response (catalog and e-commerce) businesses.

The consolidated financial statements include the accounts of the Company and its subsidiaries, including Intimate Brands, Inc. ("IBI"), an 84%-owned subsidiary. All significant intercompany balances and transactions have been eliminated in consolidation. The consolidated financial statements include the results of Galyan's Trading Co. ("Galyan's") through August 31, 1999, when a third party purchased a majority interest; Limited Too ("TOO") through August 23, 1999, when it was established as an independent company; and Abercrombie & Fitch ("A&F") through May 19, 1998, when it was established as an independent company.

Investments in unconsolidated affiliates over which the Company exercises significant influence but does not have control, including Galyan's for periods after August 31, 1999, are accounted for using the equity method The Company's share of the net income or loss of those unconsolidated affiliates is included in other income (expense).

Fiscal Year

The Company's fiscal year ends on the Saturday closest to January 31. Fiscal years are designated in the financial statements and notes by the calendar year in which the fiscal year commences. The results for fiscal year 2000 represent the fifty-three-week period ended February 3, 2001 and results for fiscal years 1999 and 1998 represent the fifty-two-week periods ended January 29, 2000 and January 30, 1999.

Cash and Equivalents

Cash and equivalents include amounts on deposit with financial institutions and money market investments with original maturities of less than 90 days.

Inventories

Inventories are principally valued at the lower of average cost or market, on a first-in first-out basis, using the retail method.

Store Supplies

The initial shipment of selling-related supplies (including, but not limited to, hangers, signage, security tags and packaging) is capitalized at the store opening date. In lieu of amortizing the initial balance, subsequent shipments are expensed, except for new merchandise presentation programs, which are capitalized. Store supplies are periodically adjusted as appropriate for changes in actual quantities or costs.

Direct Response Advertising

Direct response advertising relates primarily to the production and distribution

of the Company's catalogs and is amortized over the expected future revenue stream, which is principally three months from the date catalogs are mailed. All other advertising costs are expensed at the time the promotion first appears in media or in the store. Catalog and advertising costs amounted to $359 million, $324 million and $303 million in 2000, 1999 and 1998.

Long-lived Assets

Depreciation and amortization of property and equipment are computed for financial reporting purposes on a straight-line basis, using service lives ranging principally from 10 to 15 years for building and leasehold improvements, and 3 to 10 years for other property and equipment. The cost of assets sold or retired and the related accumulated depreciation or amortization are removed from the accounts with any resulting gain or loss included in net income. Maintenance and repairs

are charged to expense as incurred. Major renewals and betterments that extend service lives are capitalized.

Goodwill is amortized on a straight-line basis over 30 years. Additionally, goodwill related to a 1998 buyback of IBI stock reverses as the shares are reissued to cover shares needed for employee benefit plans. The cost of intellectual property assets is amortized based on the sell-through of the related products, over the shorter of the term of the license agreement or the estimated useful life of the asset, not to exceed 10 years.

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that full recoverability is questionable. Factors used in the valuation include, but are not limited to, management's plans for future operations, brand initiatives, recent operating results and projected cash flows.

Income Taxes

The Company accounts for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized based on the difference between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect in the years when those temporary differences are expected to reverse. The effect on deferred taxes of a change in tax rates is recognized in income in the period that includes the enactment date.

Shareholders' Equity

At February 3, 2001, 500 million shares of $0.50 par value common stock were authorized and 432.2 million shares were issued. At February 3, 2001 and January 29, 2000, 425.9 million shares and 429.9 million shares were outstanding. Ten million shares of $1.00 par value preferred stock were authorized, none of which were issued.

On May 2, 2000, the Company declared a two-for-one stock split ("stock split") in the form of a stock dividend distributed on May 30, 2000 to shareholders of record on May 12, 2000. Shareholders' equity reflects the reclassification of an amount equal to the par value of the increase in issued common shares ($107.9 million) from paid-in capital to common stock. In conjunction with the stock split, the Company retired 163.7 million treasury shares with a cost of $4.3 billion. A noncash charge was made against retained earnings for the excess cost of treasury stock over its par value. All share and per share data throughout this report has been restated to reflect the stock split.

Also in 2000, the Company repurchased 8.7 million shares of its common stock for $200 million.

On June 3, 1999, the Company completed an issuer tender offer by purchasing 30 million shares of its common stock at $25 per share and on May 19, 1998, the

Company acquired 94.2 million shares of its common stock via a tax-free exchange offer to establish A&F as an independent company (see Note 2).

Revenue Recognition

The Company recognizes sales upon customer receipt of the merchandise. Shipping and handling revenues are included in net sales and the related costs are included in costs of goods sold, buying and occupancy. Revenue for gift certificate sales and store credits is recognized at redemption. A reserve is provided for projected merchandise returns based on prior experience.

The Company's revenue recognition policy is consistent with the guidance contained in the Securities and Exchange Commission's Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements," the adoption of which did not have a material effect on the consolidated financial statements.

Earnings Per Share

Net income per share is computed in accordance with Statement of Financial Accounting Standards ("SFAS") No. 128, "Earnings Per Share." Earnings per basic share is computed based on the weighted average number of outstanding common shares. Earnings per diluted share includes the weighted average effect of dilutive options and restricted stock on the weighted average shares outstanding. Additionally, earnings per diluted share includes the impact of the dilutive options and restricted stock at IBI as a reduction to earnings. This resulted in a $0.01 reduction to 2000 and 1999 earnings per diluted share and no impact to 1998 earnings per diluted share.

(Thousands)

Weighted Average Common Shares Outstanding	2000	1999	1998
Basic shares	427,604	439,164	481,814
Effect of dilutive options and restricted stock	15,444	16,400	10,824
Diluted shares	443,048	455,564	492,638

The computation of earnings per diluted share excludes options to purchase 1.1 million, 0.6 million and 4.4 million shares of common stock in 2000, 1999 and 1998, because the options' exercise price was greater than the average market price of the common shares during the year. In addition, shares that were previously subject to the Contingent Stock Redemption Agreement (see Note 8) were excluded from the dilution calculation in 1998 because their redemption would not have had a dilutive effect on earnings per share.

Gains on Sale of Subsidiary Stock

Gains in connection with the sale of subsidiary stock are recognized in the period the transaction is closed.

Effective August 31, 1999, an affiliate of Freeman, Spogli & Co. (together with Galyan's management) purchased a 60% majority interest in Galyan's, and the Company retained a 40% interest. In addition, the Company sold certain property for $71 million to a third party, which then leased the property to Galyan's under operating leases. The Company received total cash proceeds from these transactions of approximately $182 million, as well as subordinated debt and warrants of $20 million from Galyan's. During the first five years, interest (at 12% to 13%) on the subordinated debt may be paid in kind rather than in cash. The transactions resulted in a third quarter pretax gain on sale of subsidiary stock of $11 million, offset by a $6 million provision for taxes. In addition, the revised tax basis of the Company's remaining investment in Galyan's resulted in an additional $7 million deferred tax expense.

Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Because actual results may differ from those estimates, the Company revises its estimates and assumptions as new information becomes available.

Reclassifications

In the fourth quarter of 2000, the Company adopted Emerging Issues Task Force ("EITF") Issue No. 00-10, "Accounting for Shipping and Handling Fees and Costs." As a result, the Company reclassified shipping and handling revenues from general, administrative and store operating expenses to net sales. The related shipping costs were reclassified from general, administrative and store operating expenses to costs of goods sold, buying and occupancy. Additionally, the Company has reclassified discounts on sales to associates as a reduction to net sales. Such discounts were previously recorded in general, administrative and store operating expenses. These and certain other prior year amounts have been reclassified to conform to the current year presentation.

2. Special and Nonrecurring Items

During the fourth quarter of 2000, the Company recorded a $9.9 million special and nonrecurring charge to close Bath & Body Works' United Kingdom stores. All nine stores are scheduled to close during the first quarter of 2001. The charge consisted of store and other asset write-offs of $4.9 million and accruals for lease termination and other costs of $5.0 million.

During the fourth quarter of 1999, the Company recognized the reversal of a $36.6 million liability related to downsizing costs for Henri Bendel, initially recognized as a special and nonrecurring charge to operating income in 1997. The execution of the plan to downsize the remaining Henri Bendel store in New York was primarily based on negotiations with the original landlord. However, a change in landlords ultimately resulted in the termination of negotiations during the fourth quarter of 1999, which prevented the completion of the original plan. As a result, the Company reversed the $36.6 million liability through the special and nonrecurring items classification.

On July 15, 1999, the Company's Board of Directors approved a formal plan to spin-off Limited Too. The record date for the spin-off was August 11, 1999, with Limited shareholders receiving one share of Too, Inc. (the successor company to Limited Too) common stock for every seven shares of Limited common stock held on that date. The spin-off was completed on August 23, 1999. The Company recorded the spin-off as a $25 million dividend, which represented the carrying value of the net assets underlying the common stock distributed. As part of the transaction, the Company received total proceeds of $62 million that included a $50 million dividend from TOO and a $12 million repayment of advances to TOO. During the second quarter of 1999, the Company recognized a $13.1 million charge for transaction costs related to the spin-off.

On May 19, 1998, the Company completed a tax-free exchange offer to establish A&F as an independent company. A total of 94.2 million shares of the Company's common stock were exchanged at a ratio of 0.86 of a share of A&F common stock for each Limited share tendered. In connection with the exchange, the Company recorded a $1.651 billion tax-free gain. This gain was measured based on the $21.81 per share market value of the A&F common stock at the expiration date of the exchange offer. In addition, on June 1, 1998, a $5.6 million dividend was effected through a pro rata spin-off to shareholders of the Company's remaining 6.2 million A&F shares. Limited shareholders of record as of the close of trading on May 29, 1998 received .013673 of a share of A&F for each Limited share owned at that time.

During the first quarter of 1998, the Company recognized a gain of $93.7 million from the sale of 2.57 million shares of Brylane at $51 per share, representing its remaining interest in Brylane. This gain was partially offset by a $5.1 million charge for severance and other associate termination costs related to the closing of five of six Henri Bendel stores. The severance charge

was paid in 1998.

14

3. Property and Equipment, Net

(Thousands)

Property and Equipment, at Cost	2000	1999
Land, buildings and improvements	$ 362,997	$ 390,121
Furniture, fixtures and equipment	2,079,567	2,020,651
Leaseholds and improvements	655,736	498,232
Construction in progress	46,748	35,823
Total	3,145,048	2,944,827
Less: accumulated depreciation and amortization	1,750,429	1,715,215
Property and equipment, net	$1,394,619	$1,229,612

4. Leased Facilities, Commitments and Contingencies

Annual store rent consists of a fixed minimum amount and/or contingent rent based on a percentage of sales exceeding a stipulated amount. Store lease terms generally require additional payments covering taxes, common area costs and certain other expenses.

For leases that contain predetermined fixed escalations of the minimum rentals and/or rent abatements, the Company recognizes the related rental expense on a straight-line basis and records the difference between the recognized rental expense and amounts payable under the leases as deferred lease credits, which are included in other long-term liabilities. At February 3, 2001 and January 29, 2000, this liability amounted to $106.9 million and $124.5 million.

(Thousands)

Rent Expense	2000	1999	1998
Store rent			
Fixed minimum	$624,769	$635,543	$666,729
Contingent	57,300	53,371	39,642
Total store rent	682,069	688,914	706,371
Equipment and other	29,051	32,201	22,511
Total rent expense	$711,120	$721,115	$728,882

At February 3, 2001, the Company was committed to noncancelable leases with remaining terms generally from one to twenty years. A substantial portion of these commitments consists of store leases with initial terms ranging from ten to twenty years, with options to renew at varying terms.

(Thousands)

Minimum Rent Commitments Under Noncancelable Leases	
2001	$644,469
2002	611,467
2003	562,669
2004	507,577
2005	441,874
Thereafter	959,268

The Company has a non-controlling interest in a partnership that owns and is developing the Easton Town Center, a commercial entertainment and shopping center in Columbus, Ohio. The partnership's principal funding source is a $189 million secured loan, $126 million of which was outstanding at February 3, 2001. The Company and one of its partners have guaranteed the first $75 million of

this loan and completion of the "Fashion District" within the Easton Town Center. The Company and one of its partners have also indemnified the lender against any environmental matters related to the Easton Town Center.

5. Accrued Expenses

(Thousands)

Accrued Expenses	2000	1999
Compensation, payroll taxes and benefits	$ 84,885	$110,803
Deferred revenue	130,729	125,500
Taxes, other than income	56,782	46,878
Interest	10,504	18,053
Other	298,684	237,076
Total	$581,584	$538,310

6. Income Taxes

(Thousands)

Provision for Income Taxes	2000	1999	1998
Currently payable			
Federal	$251,700	$389,000	$194,100
State	27,700	58,000	38,800
Foreign	6,000	2,100	4,500
Total	285,400	449,100	237,400
Deferred			
Federal	16,500	(82,100)	53,100
State	29,100	4,000	14,500
Total	45,600	(78,100)	67,600
Total provision	$331,000	$371,000	$305,000

The foreign component of pretax income, arising principally from overseas sourcing operations, was $69.7 million, $41.5 million and $65.5 million in 2000, 1999 and 1998.

Reconciliation Between the Statutory Federal Income Tax Rate and the Effective Tax Rate	2000	1999	1998
Federal income tax rate	35.0%	35.0%	35.0%
State income taxes, net of Federal income tax effect	4.5%	4.5%	4.5%
Other items, net	0.5%	0.5%	0.4%
Total	40.0%	40.0%	39.9%

The reconciliation between the statutory Federal income tax rate and the effective income tax rate on pretax earnings excludes minority interest and, in 1998, the nontaxable gain from the split-off of A&F.

Income taxes payable included net current deferred tax liabilities of $14.1 million at February 3, 2001. Other current assets included net current deferred tax assets of $38.5 million at January 29, 2000. Income tax payments were $315.5 million, $408.8 million and $241.7 million for 2000, 1999 and 1998.

The Internal Revenue Service has assessed the Company for additional taxes and interest for the years 1992 to 1996 relating to the undistributed earnings of foreign affiliates for which the Company has provided deferred taxes. On September 7, 1999, the United States Tax Court sustained the position of the IRS with respect to the 1992 year. In connection with an appeal of the Tax Court judgment, in 1999 the Company made a $112 million payment of taxes and interest for the years 1992 to 1998 that reduced deferred tax liabilities. Management believes the ultimate resolution of this matter will not have a material adverse

effect on the Company's results of operations or financial condition.

(Thousands)

Effect of Temporary Differences That Give Rise to Deferred Income Taxes	2000			1999		
	Assets	Liabilities	Total	Assets	Liabilities	Total
Tax under book depreciation	$ 3,400	-	$ 3,400	$ 14,800	-	$ 14,800
Undistributed earnings of foreign affiliates	-	$ (34,700)	(34,700)	-	$ (28,100)	(28,100)
Special and nonrecurring items	30,100	-	30,100	37,100	-	37,100
Rent	24,400	-	24,400	54,900	-	54,900
Inventory	25,200	-	25,200	46,300	-	46,300
Investments in unconsolidated affiliates	5,500	-	5,500	-	(3,800)	(3,800)
State income taxes	41,200	-	41,200	34,000	-	34,000
Other, net	22,900	-	22,900	55,200	(46,800)	8,400
Total deferred income taxes	$152,700	$ (34,700)	$ 118,000	$ 242,300	$ (78,700)	$ 163,600

7. Long-term Debt

(Thousands)

Unsecured Long-term Debt	2000	1999
7 1/2% Debentures due March 2023	$250,000	$250,000
7 4/5% Notes due May 2002	150,000	150,000
9 1/8% Notes due February 2001	-	150,000
Floating rate notes	-	100,000
	400,000	650,000
Less: current portion of long-term debt	-	250,000
Total	$400,000	$400,000

The 7 1/2% debentures may be redeemed at the option of the Company, in whole or in part, at any time on or after March 15, 2003, at declining premiums.

The Company maintains a $1 billion unsecured revolving credit agreement (the "Agreement"), established on September 29, 1997. Borrowings outstanding under the Agreement, if any, are due September 28, 2002. However, the revolving term of the Agreement may be extended an additional two years upon notification by the Company on September 29, 2001, subject to the approval of the lending banks. The Agreement has several borrowing options, including interest rates that are based on either the lender's "base rate," as defined, LIBOR, CD-based options or at a rate submitted under a bidding process. Facilities fees payable under the Agreement are based on the Company's long-term credit ratings, and currently approximate 0.1% of the committed amount per annum.

The Agreement supports the Company's commercial paper program, which is used from time to time to fund working capital and other general corporate requirements. No commercial paper or amounts under the Agreement were outstanding at February 3, 2001 and January 29, 2000. The Agreement contains covenants relating to the Company's working capital, debt and net worth.

The Company has a shelf registration statement, under which up to $250 million of debt securities and warrants to purchase debt securities may be issued.

Interest paid was $65.8 million, $81.3 million and $68.6 million in 2000, 1999 and 1998.

8. Contingent Stock Redemption Agreement and Restricted Cash

On May 3, 1999, the Company, Leslie H. Wexner, Chairman and CEO of the Company, and The Wexner Children's Trust (the "Trust") entered into an agreement (the

"Rescission

Agreement") rescinding the Contingent Stock Redemption Agreement dated as of January 26, 1996, as amended, among the Company, Mr. Wexner and the Trust. Pursuant to the Rescission Agreement, the rights and obligations of the Company, Mr. Wexner and the Trust under the Contingent Stock Redemption Agreement were terminated, and the Company used the $351.6 million of restricted cash to purchase shares in the Company's tender offer, which expired on June 1, 1999.

The Company earned interest of $4.1 million and $17.9 million in 1999 and 1998 on the restricted cash.

9. Stock Options and Restricted Stock

Under the Company's stock plans, associates may be granted up to a total of 62.9 million restricted shares and options to purchase the Company's common stock at the market price on the date of grant. Options generally vest 25% per year over the first four years of the grant. Of the options granted, 0.6 million in 2000, 5.0 million in 1999 and 4.6 million in 1998 had graduated vesting schedules of six or more years. Options have a maximum term of ten years.

Under separate IBI stock plans, IBI associates may be granted up to a total of 36.8 million restricted shares and options to purchase IBI's common stock at the market price on the date of grant. As of February 3, 2001, options to purchase 14.5 million IBI shares were outstanding, of which 4.6 million options were exercisable. Under these plans, options generally vest over periods from four to six years.

The Company measures compensation expense under APB Opinion No. 25, "Accounting for Stock Issued to Employees," and no compensation expense has been recognized for its stock option plans. In accordance with SFAS No. 123, "Accounting for Stock-Based Compensation," the fair value of each option grant is estimated on the date of grant using the Black-Scholes option-pricing model discussed below. If compensation expense had been determined using the estimated fair value of options under SFAS No. 123, the pro forma effects on net income and earnings per share, including the impact of options issued by IBI, would have been a reduction of approximately $22.3 million or $0.05 per share in 2000, $18.7 million or $0.04 per share in 1999 and $13.9 million or $0.03 per share in 1998.

The weighted average per share fair value of options granted ($5.19, $5.64 and $4.16 during 2000, 1999 and 1998) was used to calculate the pro forma compensation expense. The fair value was estimated using the Black-Scholes option-pricing model with the following weighted average assumptions for 2000, 1999 and 1998: dividend yields of 2.3%, 2.1% and 2.2%; volatility of 36%, 32% and 29%; risk-free interest rates of 5%, 7% and 5%; assumed forfeiture rates of 20%, 20% and 20%; and expected lives of 4.3 years, 5.2 years and 6.3 years.

Restricted Shares

Approximately 41,000, 1,040,000 and 1,716,000 restricted Limited shares were granted in 2000, 1999 and 1998, with market values at date of grant of $0.7 million, $18.5 million and $27.4 million. Restricted shares generally vest either on a graduated scale over four years or 100% at the end of a fixed vesting period, principally five years. In 1999, 100,000 restricted shares were granted with a graduated vesting schedule over six years. Approximately 314,000 restricted shares granted in 1999 include performance requirements, all of which were met.

Additionally, the expense recognized from the issuance of IBI restricted stock grants impacted the Company's consolidated results. IBI granted 59,000, 340,000 and 850,000 restricted shares in 2000, 1999 and 1998. Vesting terms for the IBI restricted shares are similar to those of The Limited. The market value of restricted shares is being amortized as compensation expense over the vesting period, generally four to six years. Compensation expense related to restricted stock awards, including expense related to awards granted at IBI, amounted to

$15.0 million in 2000, $28.8 million in 1999 and $31.3 million in 1998.

Stock Options Outstanding at February 3, 2001

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$7-$10	8,649,000	5.8	$ 9	3,889,000	$ 9
$11-$15	10,732,000	6.3	$12	4,232,000	$12
$16-$20	8,990,000	8.4	$16	2,193,000	$16
$21-$27	1,836,000	9.0	$22	160,000	$22
$7-$27	30,207,000	6.9	$13	10,474,000	$12

Stock Option Activity	Number of Shares	Weighted Average Option Price Per Share
1998		
Outstanding at beginning of year	28,140,000	$ 9.85
Granted	7,770,000	13.16
Exercised	(4,878,000)	9.31
Canceled	(1,186,000)	12.13
Outstanding at end of year	29,846,000	$10.71
Options exercisable at end of year	8,908,000	$ 9.79
1999		
Outstanding at beginning of year	29,846,000	$10.71
Granted	10,014,000	17.31
Exercised	(5,348,000)	9.20
Canceled	(1,938,000)	11.95
Outstanding at end of year	32,574,000	$12.03
Options exercisable at end of year	8,114,000	$ 9.68
2000		
Outstanding at beginning of year	32,574,000	$12.03
Granted	4,075,000	17.39
Exercised	(4,157,000)	10.22
Canceled	(2,285,000)	14.03
Outstanding at end of year	30,207,000	$12.86
Options exercisable at end of year	10,474,000	$11.53

10. Retirement Benefits

The Company sponsors a qualified defined contribution retirement plan and a nonqualified supplemental retirement plan. Participation in the qualified plan is available to all associates who have completed 1,000 or more hours of service with the Company during certain 12-month periods and attained the age of 21. Participation in the nonqualified plan is subject to service and compensation requirements. Company contributions to these plans are based on a percentage of associates' eligible annual compensation. The cost of these plans was $57.9 million in 2000, $53.7 million in 1999 and $52.5 million in 1998. The liability for the nonqualified plan at February 3, 2001 and January 29, 2000 amounted to $107.0 million and $87.1 million and is included in other long-term liabilities.

11. Derivatives, Fair Value of Financial Instruments and Concentration of Credit Risk

The Company uses forward contracts on a limited basis, in order to reduce market risk exposure associated with fluctuations in foreign currency rates on a small volume of its merchandise purchases. These financial instruments are designated at inception as hedges, and are monitored to determine their effectiveness as hedges. The Company does not hold or issue financial instruments for trading purposes.

At January 29, 2000, the Company had an interest rate swap that effectively changed the Company's interest rate exposure on $100 million of variable rate debt to a fixed rate of 8.09% through July 2000. There were no interest rate swaps outstanding at February 3, 2001.

Fair Value

The carrying value of cash equivalents, accounts receivable, accounts payable, current portion of long-term debt, and accrued expenses approximates fair value because of their short maturity. The fair value of long-term debt is estimated based on the quoted market prices for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities. The estimated fair value of the Company's long-term debt at February 3, 2001 and January 29, 2000 was $396.4 million and $371.8 million compared to the carrying value of $400.0 million in 2000 and 1999.

Concentration of Credit Risk

The Company is subject to concentration of credit risk relating to cash and equivalents. The Company maintains cash and equivalents with various major financial institutions, as well as corporate commercial paper. The Company monitors the relative credit standing of these financial institutions and other entities and limits the amount of credit exposure with any one entity. The Company also monitors the creditworthiness of the entities to which it grants credit terms in the normal course of business.

12. Segment Information

The Company identifies operating segments based on a business's operating characteristics. Reportable segments were determined based on similar economic characteristics, the nature of products and services and the method of distribution. The apparel segment derives its revenues from sales of women's and men's apparel. The Intimate Brands segment derives its revenues from sales of women's intimate and other apparel, and personal care products and accessories. Sales outside the United States were not significant.

The Company and IBI have entered into intercompany agreements for services that include merchandise purchases, capital expenditures, real estate management and leasing, inbound and outbound transportation and corporate services. These agreements specify that identifiable costs be passed through to IBI and that other service-related costs be allocated based on various methods. Costs are passed through and allocated to the apparel businesses in a similar manner. Management believes that the methods of allocation are reasonable.

As a result of its spin-off, the operating results of TOO are included in the "Other" category for all periods presented. The operating results of Galyan's (which were consolidated through August 31, 1999 and accounted for using the equity method thereafter) are also included in the "Other" category.

(Thousands)

Segment Information	Apparel Businesses	Intimate Brands	* Other	Reconciling Items	Total
2000					
Net sales	$4,948,829	$5,117,199	$ 38,578	-	$10,104,606
Intersegment sales	628,766	-	-	+ $ (628,766)	-
Depreciation and amortization	99,109	122,172	49,865	-	271,146
Operating income (loss)	123,477	754,356	(1,817)	**(9,900)	866,116
Total assets	1,160,758	1,457,348	1,356,953	/\ 113,063	4,088,122
Capital expenditures	115,879	245,127	85,170	-	446,176
1999					
Net sales	$4,708,681	$4,632,029	$ 425,510	-	$ 9,766,220
Intersegment sales	570,659	-	-	+ $ (570,659)	-
Depreciation and amortization	107,810	104,625	60,008	-	272,443
Operating income (loss)	131,728	793,516	(17,936)	# 23,501	930,809
Total assets	1,106,072	1,384,432	1,611,922	/\ 23,741	4,126,167
Capital expenditures	118,710	205,516	51,179	-	375,405
1998					
Net sales	$4,588,887	$3,988,594	$ 787,269	-	$ 9,364,750
Intersegment sales	457,204	-	-	+ $ (457,204)	-
Depreciation and amortization	126,438	101,221	58,341	-	286,000
Operating income (loss)	(45,353)	670,849	58,197	@ 1,740,030	2,423,723
Total assets	1,186,243	1,448,077	1,909,528	/\ 5,860	4,549,708
Capital expenditures	68,695	121,543	157,118	-	347,356

* Included in the "Other" category are Henri Bendel, Galyan's (through August 31, 1999), TOO (through August 23, 1999), A&F (through May 19, 1998), non-core real estate, equity investments and corporate. None of the businesses included in "Other" are significant operating segments.

+ Represents intersegment sales elimination.

/\ Represents intersegment receivable/payable elimination.

Special and nonrecurring items--

** 2000: a $9.9 million charge for Intimate Brands to close Bath & Body Works' nine stores in the United Kingdom.

1999: 1) a $13.1 million charge for transaction costs related to the TOO spin-off; and 2) the reversal of a $36.6 million liability related to downsizing costs for Henri Bendel. These special items relate to the "Other" category.

@ 1998: 1) a $1.651 billion tax-free gain on the split-off of A&F; 2) a $93.7 million gain from the sale of the Company's remaining interest in Brylane; and 3) a $5.1 million charge for severance and other associate termination costs related to the closing of Henri Bendel stores. These special items relate to the "Other" category.

13. Quarterly Financial Data (Unaudited)

Summarized quarterly financial results for 2000 and 1999 follow (thousands except per share amounts):

2000 Quarters *	First	Second	Third	Fourth
Net sales	$2,124,986	$2,289,317	$2,168,375	$3,521,928
Gross income	698,047	742,418	719,555	1,277,197
Net income	62,950	77,573	49,231	238,151
Net income per share:				
Basic	$ 0.15	$ 0.18	$ 0.12	$ 0.56
Diluted	0.14	0.17	0.11	0.54
1999 Quarters *				
Net sales	$2,117,068	$2,289,250	$2,064,068	$3,295,834
Gross income	647,036	727,930	656,992	1,291,199
Net income	45,451	57,482	41,362	316,464
Net income per share:				
Basic	$ 0.10	$ 0.13	$ 0.10	$ 0.74
Diluted	0.10	0.12	0.09	0.70

* Net sales and gross income for 1999 and the first three quarters of 2000 reflect the reclassification of shipping and handling revenues and costs and associate discounts (see Note 1).

2000: Special and nonrecurring items included a $9.9 million charge in the fourth quarter to close Bath & Body Works' nine stores in the United Kingdom. 1999: Special and nonrecurring items included a $13.1 million charge in the second quarter for transaction costs related to the TOO spin-off and the reversal of a $36.6 million liability in the fourth quarter related to downsizing costs for Henri Bendel.

MARKET PRICE AND DIVIDEND INFORMATION

The Company's common stock is traded on the New York Stock Exchange ("LTD") and the London Stock Exchange. On February 3, 2001, there were approximately 77,000 shareholders of record. However, when including active associates who participate in the Company's stock purchase plan, associates who own shares through Company-sponsored retirement plans and others holding shares in broker accounts under street names, the Company estimates the shareholder base to be approximately 190,000.

Fiscal Year 2000	Market Price High	Low	Cash Dividend Per Share
4th quarter	$27.78	$14.44	$0.075
3rd quarter	24.92	18.18	0.075
2nd quarter	25.58	20.79	0.075
1st quarter	25.61	14.23	0.075
Fiscal Year 1999			
4th quarter	$21.91	$15.25	$0.075
3rd quarter	* 22.97	18.22	0.075
2nd quarter	25.06	22.09	0.075
1st quarter	22.00	17.13	0.075

* Limited Too was spun off to The Limited shareholders in the form of a dividend valued at approximately $1.18 per share on the date of the spin-off (August 23, 1999).

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and
Shareholders of The Limited, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, shareholders' equity and cash flows present fairly, in all material respects, the financial position of The Limited, Inc. and its subsidiaries at February 3, 2001 and January 29, 2000, and the results of their operations and their cash flows for each of the three years in the period ended February 3, 2001 (on pages 11-16) in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Columbus, Ohio
March 1, 2001

Alphabetical Index

academic accountants....21
accounting cycle....31, 77, 86, 87, 123, 124, 126, 167, 190, 191, 214, 215, 229, 232, 234
Accounting Education Change Commission....6, 26
accounting equation....30, 39-48, 53, 54, 56, 58, 60, 62-64, 66, 70, 75, 78, 81, 82, 86, 191
Accounting period....169
Accounting Principles Board (APB)....24
Accounting Review....24
Accounting Review, The....24
accounting system....15, 40, 41, 78, 79, 87, 123, 209, 210, 214, 215, 229, 233, 256, 261
accounting theory....224, 254, 255, 270, 279, 283, 284, 295, 298, 299
Accounting year....169
Accounts Payable 36-38, 42-44, 48, 51, 54, 56-59, 61, 65-69, 71, 72, 79, 84, 92, 96, 98-100, 103, 104, 108, 109, 111-113, 115, 118-122, 129, 131-134, 136, 138, 139, 150, 186, 195, 196, 200, 210-212, 216, 218, 222, 226, 227, 229, 232, 234, 235, 237, 239-248, 252, 253, 316-318, 320-322, 330, 332, 333, 335, 337, 344, 350, 354, 368, 369, 385, 403
Accounts Receivable.....37, 38, 42-44, 47, 48, 51, 54, 56-58, 61, 65, 66, 68-72, 75, 76, 79, 92, 99-101, 108-110, 112, 116, 118-122, 125, 129, 131-134, 136, 138, 139, 150, 162-164, 169, 170, 172, 186, 195, 200, 201, 210-212, 216, 219, 220, 223, 226, 227, 229, 232, 234, 235, 237, 239-242, 244-248, 252, 253, 259, 261, 299, 306, 307, 310-312, 320-322, 329, 332, 333, 335, 338, 341, 344, 348-350, 354, 367, 368, 386
accrual basis...92, 123, 144-146, 163, 167, 169, 173-175, 181, 185, 187, 257, 272, 283, 286, 288, 293, 295, 301
Accrual basis of accounting....123
accrued assets and liabilities....170
Accrued revenues and expenses....170
Accumulated amortization....218, 221, 229
Accumulated Depreciation..158-160, 168, 170, 171, 182, 183, 186, 188, 195, 211, 218, 221, 227-229, 235, 238-248, 252, 259, 284, 299, 300, 320, 350, 354
Accumulated Depreciation account....158-160, 170, 171, 188, 299
Adjunct account....319, 320, 338
adjusting entries......87, 118, 144-151, 155, 156, 162, 166-168, 170-173, 175, 180, 181, 184-187, 192, 194, 196, 200, 201, 224-226, 228, 229, 233, 253, 257, 259, 260, 332, 348, 352
administrative expenses....266, 294, 296, 297, 324-327, 331, 332, 336, 338, 353, 355, 417
AECC....6, 9
AICPA....17, 23, 24, 28, 147, 210, 261, 262, 266, 301
Allowances account....309, 311, 312, 318, 330, 340
American Accounting Association....15, 23-25, 261
assets......4, 33, 35-49, 51, 52, 54, 57-63, 68, 69, 71, 72, 74-76, 78, 80-82, 84-86, 90-93, 113, 116-118, 124, 130, 141, 146-149, 156, 157, 159, 160, 162, 165, 167, 170, 171, 174, 178, 186-188, 190-192, 194, 197, 200, 209, 216-226, 229-232, 234, 235, 238, 251, 256, 258-263, 267, 269, 270, 273, 277-279, 281, 284, 285, 290, 293, 296, 306, 331, 335, 342, 348, 358, 361, 389, 395
balance sheet.......7, 16, 30, 34-39, 41, 44, 45, 47, 48, 51, 54-56, 58-62, 65, 67-73, 76, 78, 90, 93, 118, 124, 140, 141, 145, 147, 150, 151, 153, 155, 156, 158, 159, 161-166, 168, 170, 171, 178, 188, 190-192, 196-200, 208, 215-223, 225, 227, 229-235, 240, 244, 245, 248, 250-253, 256, 258-260, 273, 275, 293, 324, 331-333, 335, 346, 349, 350, 355, 358, 360, 361, 363, 371, 377, 380, 381, 389, 397, 414, 419

bias....260, 275, 276, 284, 285, 295
bonds payable....223, 229, 230
book value....158-160, 170, 261, 267, 284, 285, 299, 300
Buildings 119, 121, 228
Business emphasis....6
business entity concept....31, 32, 40, 58, 61, 256, 284, 286, 288, 293, 301
Business transactions....123
calendar year....147, 169, 170, 188, 291
capital stock....36, 38, 42, 44, 46-48, 51, 54-58, 62-72, 82, 84, 85, 89, 91-93, 105-108, 111, 112, 118, 119, 121, 122, 124, 125, 127-136, 138, 139, 143, 150, 181, 186, 192, 195, 197, 200, 202, 209, 211, 226, 227, 234, 235, 237, 239-248, 252, 332, 333, 335, 347, 350, 352-355
cash basis of accounting....145, 146, 167, 170, 173-175, 181, 185, 257, 264, 287
cash discount....309, 310, 317, 318, 328, 330, 338, 340, 344, 345
cash equivalents....116, 218, 219, 229, 281
CC-BY-NC-....3
Certified Internal Auditor....20
Certified Management Accountants....20
Certified Public Accountant....17, 23, 25, 75, 147, 210, 261, 266, 301
Chain discount....308, 338, 340
Chart of accounts....123
CIA....20
classified balance sheet...7, 190, 191, 215-217, 219, 223, 225, 229, 232, 233, 240, 244, 245, 248, 250, 253, 349, 350, 355, 358
classified income statement....303, 304, 324-327, 330, 338, 341-343, 348-350, 352, 354, 355, 357, 358
closing process....45, 201, 202, 208, 226, 229, 231, 232, 236, 251, 304, 335
Comparability....276, 277, 283, 284, 292, 295, 297
completed-contract method....265, 284, 286, 293, 294, 297
Compound journal entry....123
Conservatism....267-270, 283-285, 288-290, 294
Consigned goods....322, 338, 341, 357
consistency....258, 260, 276, 283, 284, 287, 290, 293, 295, 296, 302, 383, 385
Construction in progress....218, 221, 229
continuity....41, 58, 59, 62, 256, 260, 283, 285, 290, 294
contra asset account....151, 159, 170, 188, 221
Copyright....221, 229
Corporation...24, 33, 35, 38-40, 42, 45, 52, 53, 55, 58, 60, 63, 71, 76, 82, 91, 140, 212, 214, 222, 224, 230, 235, 238, 256, 289, 293, 328, 348, 356, 399
cost....2, 23, 32, 41, 52, 56, 58, 59, 62, 66, 68, 69, 71, 92, 100, 136, 148, 149, 151, 152, 156-159, 168, 170, 176, 180-183, 186, 214, 216-218, 221, 235, 259, 261, 264, 265, 267-270, 273, 274, 277, 279-281, 283-285, 288-291, 294-297, 303, 305, 308, 313-316, 318-328, 330-332, 334, 338-343, 345-348, 351, 354-413, 415-423, 425, 426
cost of goods available for sale. .314, 316, 323, 324, 326, 330, 332, 334, 338, 343, 345, 357, 361-363, 366, 371-375, 377, 379, 384, 389-394, 396, 397, 404, 405, 426
cost of goods sold. 267, 291, 303, 305, 313-316, 319, 321-328, 330-332, 334, 339-343, 345, 346, 356, 357, 359-363, 366-369, 371-382, 384-387, 390-398, 403-408, 416, 417, 420-422, 425, 426
cost principle....261, 284, 285, 296
Cost-benefit consideration....268, 285
CPA....17-20, 22-25, 28, 32, 50, 77, 78, 142, 147, 210, 233, 261, 262, 266, 268, 298, 301, 424

Credit balance....................123
Creditors and lenders....................22
Cross-indexing....................123
current assets....................**116, 217-220, 222-226, 229, 230, 232, 238, 342, 358, 361, 389**
Current liabilities....................**217-219, 222-226, 229, 232, 238**
current ratio....................**7, 190, 215, 223, 224, 226, 229, 250, 251**
Curriculum concerns....................**5**
customers....**22, 31, 34, 35, 37, 40, 45, 53, 54, 56, 58, 59, 63, 72, 79, 92, 105, 127, 128, 130-133, 135, 138, 141, 145, 160, 161, 163, 171, 184, 185, 210, 216, 219, 220, 222, 229, 231, 249, 250, 253, 256, 260, 263, 282, 284, 292, 301, 304-306, 308, 310, 313, 322, 324, 339, 340, 356, 360, 365, 367, 385, 386, 396, 404**
Debit balance....................**123**
deferred items....................**149, 151, 162, 167, 168, 170, 173, 175**
Delivery Expense....................**320-322, 326, 338, 339, 343, 354**
Depreciable amount....................**158, 170**
Depreciable asset....................**157, 170**
depreciation accounting....................**157, 170, 257**
Depreciation expense..**150, 157, 158, 160, 169, 170, 188, 193, 195, 198, 201, 204, 206, 226-228, 237, 239, 240, 243-245, 248, 252, 253, 257, 267, 269, 275, 326, 327, 350, 354**
depreciation formula....................**157, 158, 170, 174**
Dividend....................**35, 49, 58, 59, 63, 64, 73, 79, 83, 84, 86, 91, 104, 120, 123-125, 131, 134, 135, 139, 202**
Dividends payable....................**222, 229**
Double-entry procedure....................**123**
Earning principle....................**263, 285, 293, 294**
Edwards....................**2**
Employees and their unions....................**22**
end-of-chapter materials....................**9, 26**
entity....................**31-33, 40, 41, 58, 59, 61, 147, 169, 191, 256, 257, 259, 260, 277, 278, 283-288, 290, 293-295, 301**
entrepreneur....................**30**
equities....................**39, 42, 52-54, 58-60, 65, 74, 259**
equity ratio....................**30, 52, 54, 59, 74**
estimated useful life....................**157, 170, 176, 180, 184**
ethical behavior....................**25, 26**
ethics....................**5, 9, 25, 26, 75, 141, 300, 356, 424**
exchange-price....................**41, 59, 61, 62, 261, 270, 283, 285, 288, 290, 294, 296**
exchange-price (or cost) principle....................**261, 285, 288**
expenses....**4, 23, 35-37, 45, 46, 49, 51, 52, 54, 56, 57, 59, 61, 63, 66, 68-70, 72, 73, 81-83, 85, 90-92, 113, 117, 120, 123, 126, 129, 140, 141, 145-151, 153, 157, 164, 167-170, 173-175, 187, 192, 194, 196-198, 202-204, 206, 218-220, 222, 229, 230, 241, 249, 253, 257-261, 263, 264, 266-268, 270, 278, 285, 291, 293, 294, 296, 297, 301, 305, 320, 324-328, 330-334, 336, 338-343, 346, 350, 353, 355, 356, 361, 362, 386, 394, 417, 423**
Exposure Drafts....................**25**
FASB....................**24, 25, 255, 261, 269, 271, 273, 277, 279, 283, 297**
feedback value....................**273, 285, 292, 295, 297**
Financial Accounting **1, 2, 14, 20-25, 39, 41, 78, 224, 254, 255, 260, 261, 269-271, 273, 277, 279, 285, 298-300**
Financial Accounting Standards Board....................**23-25, 254, 255, 261, 269, 273, 277, 300**
Financial Analysts Federation....................**25**
Financial Executives Institute....................**23, 25, 261**
financial reporting objectives....................**271, 283, 285, 297**
financial statements**4, 15-17, 19, 21, 22, 25, 28, 30, 31, 34, 39-41, 48, 49, 53, 62, 64, 74, 79, 80, 86, 87, 93,**

114, 115, 117, 123, 127, 130, 145, 147-151, 155, 156, 159, 160, 166, 170-174, 176, 177, 181, 191, 199-201, 213-216, 224, 225, 229, 231-233, 256-260, 262, 266, 268, 270, 271, 275-277, 279, 280, 283-285, 288-291, 295, 296, 298-301, 315, 320, 332, 335, 338, 343, 366, 382, 383, 385, 389-392, 408, 412, 413, 422, 424
fiscal year......**137, 147, 170, 188, 239, 244, 412**
FOB destination......**263, 299, 306, 319-322, 330, 336, 338, 339, 343, 345, 347, 351, 352**
FOB shipping point......**263, 319-322, 330, 339, 345-349, 351-353**
freight collect **322**
freight prepaid......**319, 320, 322, 330, 336, 338, 339, 347, 351, 352**
full disclosure principle......**261, 268, 276, 284, 285, 289**
GAAP......**22, 23, 33, 260, 271, 277**
Gain and loss recognition principle......**261, 267, 285**
Gains......**267, 270, 278, 281, 282, 285**
GASB......**24**
general public......**22, 254**
generally accepted accounting principles......**4, 22, 23, 33, 187, 260-262, 270, 277, 279, 288, 293, 298**
Global Text Project......**2**
Going-concern......**41, 58, 59, 61, 62, 256, 285, 288, 293**
goodwill......**221, 229, 281**
Governmental Accounting Standards Board......**23, 24**
Governmental units......**22**
gross margin.....**4, 264-266, 285, 287, 291, 293, 294, 296, 303-305, 325-329, 331, 334, 339, 343, 345, 346, 356, 359, 361-363, 380-382, 384, 390, 391, 393, 395, 397, 399, 404, 405, 408, 410-413, 415, 417, 419, 421, 424, 425**
gross margin percentage......**4, 264, 265, 287, 303, 304, 329, 339, 356**
gross profit......**264, 327, 329, 339, 356**
gross selling price......**307-309, 329, 337, 339, 344, 396**
Hermanson......**2**
historical cost......**261, 285, 366, 380, 383, 387, 388, 404**
Horizontal analysis......**123**
IASB......**28**
IASC......**28**
IFRS......**28, 29**
Income from operations......**326, 328, 339, 346**
income statement**16, 30, 34-39, 41, 45, 48, 51, 54, 56, 57, 59-61, 65, 67-69, 71, 72, 76, 78, 83, 84, 90, 145, 147, 148, 153, 155, 156, 158, 161, 163-165, 171, 184, 187, 188, 190, 192, 195-199, 202-204, 225, 227, 231-234, 236, 237, 240, 244, 245, 248, 250, 251, 253, 258-260, 275, 298, 303-306, 310, 312-314, 316, 317, 319, 320, 322, 324-328, 330-336, 338, 340-343, 346, 348-350, 352, 354, 355, 357, 358, 360-363, 371, 381, 389, 391, 393, 394**
Income Summary account......**202-204, 206, 207, 225, 228, 229, 231, 232, 236, 252, 336, 346, 358**
Income taxes payable......**218, 222, 230**
installment basis......**264, 265, 283, 285-287, 291, 293, 296, 301**
Institute of Certified Management Accountants......**20**
Institute of Chartered Accountants of India......**29**
Institute of Management Accountants......**20, 23, 25**
intangible assets **217**
Interest Payable......**166, 174, 222, 230, 240, 245**
Interest Receivable......**150, 162, 163, 172, 189, 195, 200, 201, 211, 219, 220, 230, 240, 245**
Internal Auditors......**20**

International Accounting Standards....28
International Financial Reporting Standards....28, 262
invoice....135, 267, 299, 306-310, 317, 328, 329, 338-340, 344, 345, 347, 357, 365, 410, 411
invoice price....307-310, 317, 329, 338-340, 344, 347, 357, 365
Journal entry....123
Journal of Accountancy....24
Land38, 41, 56-58, 64, 65, 67-69, 72, 118-122, 138, 186, 218, 220, 226, 227, 230, 231, 238, 240, 242, 245, 251, 273, 279, 294, 295, 297, 331, 347, 348, 354
Leasehold improvements....218, 221, 230
Leaseholds....221, 230
Ledger....123
liabilities....4, 36-40, 42-44, 46-48, 51, 52, 54, 57-61, 63, 68, 69, 71, 72, 74, 76, 78, 81, 82, 84-86, 90-93, 113, 116, 118, 124, 140, 147, 149, 161, 162, 164, 165, 168, 170, 174, 178, 191, 192, 194, 197, 200, 209, 216-219, 222-226, 229-232, 234, 238, 259, 261, 262, 277, 278, 296, 335
liquidation....256, 285, 293
long-term assets....38, 41, 62, 220, 230, 232, 267, 285
Long-term investment....220, 221, 230
Long-term liabilities....217, 218, 223, 226, 229, 230, 238
losses....19, 32, 52, 197, 267, 270, 275, 278, 281, 282, 285, 372, 382
Maher....2
management advisory....19
Manufacturers....34, 304, 339
manufacturing companies....33, 34, 54, 59, 267
marketable securities....219, 224, 230, 238, 281
matching principle....147, 148, 158, 170, 175, 261, 267, 270, 285, 286, 294, 296
Materiality....268-270, 277, 283-285, 288-290, 292, 295
McCubbrey....2
Merchandise in transit....322, 339
Merchandise Inventory 230, 313-316, 321-326, 329, 331-336, 339, 340, 342, 343, 345, 347, 350, 352, 354, 357, 358, 360, 361, 367-369, 376, 377, 379, 385-388, 390-392, 397, 399, 401-404, 413, 414, 416, 418, 420-422, 424
Merchandising companies....33, 34, 53, 59, 282, 304, 305, 307, 310, 313, 315, 327, 329, 331, 360
Modifying conventions....254, 255, 268-270, 283, 285, 288
Money measurement....41, 59, 62, 76, 256, 257, 260, 283, 285, 287
Net cost of purchases. .313, 314, 316, 319, 321-323, 326, 328, 330, 332, 334, 338, 339, 341, 345, 346, 357, 361, 390, 391, 399, 404
net income.35-38, 46-48, 52, 55, 57, 59, 60, 62, 63, 65, 69, 73, 148, 165-168, 177, 178, 180, 184, 195-199, 202, 206, 207, 221, 225, 227, 229, 232-237, 250, 252, 258-260, 263, 266, 269, 270, 274, 284, 290, 291, 293, 294, 296, 297, 299, 300, 305, 326-328, 331-334, 336, 339, 346, 358, 360-363, 366, 380-383, 385, 394-396, 398, 399, 403, 405, 407-409, 412, 414, 417-419, 425, 426
net purchases....314, 317, 319, 323, 325, 328, 334, 339, 345, 357
net sales....166, 306, 312, 313, 322, 325, 327, 328, 330, 334, 339, 340, 342, 343, 345, 346, 356, 390, 391, 394, 397, 399, 404, 412, 413, 424
neutrality....275, 276, 285, 292, 295, 297
Nominal accounts....123
Nonoperating expenses....326-328, 339
Nonoperating revenues....325-328, 330, 331, 339, 342
Note38, 41, 42, 44, 47, 48, 56, 59, 63-66, 70, 79, 82, 86, 92, 106, 109, 113, 114, 123, 129-132, 135, 136, 138,

151, 166, 172, 183, 192, 196, 197, 203, 204, 217, 219, 220, 222, 230, 273, 280, 310, 325, 327, 335, 336, 363, 371, 375, 379, 383, 385, 400, 416, 420
notes payable. .**36-38, 42-44, 46-48, 51, 54, 56, 57, 59, 61, 65, 66, 70, 79, 82, 106, 107, 118, 119, 121, 122, 131, 132, 136, 138, 183, 222, 223, 226, 227, 230, 238-240, 242, 245, 247, 248**
Objectives and overall approach of the eighth edition....**6**
office equipment....**36-38, 42-44, 51, 64, 132, 134-136, 186, 220, 230, 242-245, 248, 326, 327**
office furniture....**133-136, 220, 230, 248**
operating cycle....**219, 222, 229, 230, 361**
Operating expenses....**66, 68, 324-327, 330, 331, 334, 338, 339, 342, 343, 346**
Operating revenues....**306, 312, 325, 326, 330, 331, 334, 339, 342**
Owners and prospective owners....**22**
Pacioli....**14, 79, 142**
Paid-in Capital....**219, 223, 230, 284, 299**
partnership....**32, 53-55, 59, 60, 63, 214**
Passage of title....**319, 330, 339**
Patent....**221, 230**
Pedagogy....**8**
percentage-of-completion....**265, 266, 283, 285, 291, 294, 296, 297**
Period costs....**267, 285**
periodic inventory procedure.......**314-316, 321, 324, 330, 339, 340, 342-345, 361, 366, 370-375, 378, 384, 390, 398, 405, 407, 410, 416, 417, 420, 421, 424, 425**
Periodicity....**41, 59, 62, 76, 256-260, 283, 286-288, 290, 293, 295, 302**
Permanent accounts....**124**
perpetual inventory procedure......**314, 315, 330, 339, 340, 357, 359, 366-370, 376-379, 384-387, 396-398, 405, 407, 409-411, 415, 416, 420, 421, 425**
Philosophy and purpose....**4**
physical inventory......**155, 156, 180, 299, 315, 316, 321, 322, 339-341, 343, 361, 364, 365, 367, 370, 387, 390-393, 395, 407, 410, 412, 413, 418, 422**
post-closing trial balance....**87, 118, 190, 208, 209, 224, 225, 229-231, 233, 237, 240, 246, 251-253, 332**
Predictive value....**273, 274, 286, 292, 295, 297**
Prepaid expense....**151, 153, 155-157, 165, 170**
prepaid expenses....**149, 151, 157, 170, 219, 220, 230, 259**
private sector....**24, 28, 300**
Product costs....**267, 286**
profitability....**34, 39, 40, 52-54, 59, 60, 86, 148, 191, 256, 305, 325, 328, 360, 363**
Property, plant, and equipment....**174, 220, 225, 229, 230, 238**
purchase discount....**309, 317, 325, 334, 338, 340, 341, 356, 365, 396**
Purchase Discounts account....**317, 340**
Purchase returns....**314, 317-319, 321-323, 325, 328, 330, 332-335, 337, 339-341, 344-346, 357, 366, 367, 369, 385, 392, 393, 413, 417, 418, 422**
Purchases account....**316, 317, 319, 340-342, 357, 366**
qualitative characteristics....**271, 273, 274, 277, 283, 286, 288, 289, 297, 298**
Retained Earnings....**51**
real accounts....**124**
Realization principle....**263, 283, 286, 293, 294**
Relevance....**215, 273, 275, 276, 283, 286, 292, 295, 298, 302**
reliability....**14, 262, 275, 276, 283, 286, 292, 295, 298, 302**
representational faithfulness....**275, 286, 292, 298**

retailers....281, 304, 307, 308, 313, 340, 348, 360
retained earnings..16, 30, 34-39, 45-49, 51, 54-72, 76, 78, 82-86, 91, 92, 118, 119, 121, 122, 124, 126, 132-134, 136-139, 145, 165, 186, 190, 192, 195-202, 207-209, 211, 219, 223, 225-229, 231-236, 238-248, 251-253, 259, 260, 275, 331-336, 346, 350, 354, 355, 360-363, 395
revenue recognition principle....261, 263, 267, 286, 287, 296
revenues....4, 20, 35-37, 42, 45-47, 49, 51, 54, 57, 59, 61, 63, 69, 72, 81-83, 85, 90-92, 113, 123, 124, 126, 145-149, 151, 153, 160, 162, 165, 167-170, 173-175, 187, 192, 194, 196-198, 202, 206, 219, 222, 229-232, 257, 258, 260, 261, 263-268, 270, 275, 278, 280, 281, 285, 286, 288, 289, 293, 301, 305-307, 312, 324-331, 334, 338-342, 361, 380, 381, 383, 386, 396, 397
revenues received in advance....222, 231
Salaries Payable....150, 165, 169, 170, 189, 195, 200, 201, 211, 222, 227, 228, 231, 232, 240, 245, 252
sales allowance....311, 312, 330, 340, 347, 386
sales discount....309-312, 338, 340, 342, 356
Sales Discounts account....309, 310, 312, 330, 340
Sales Return....310-312, 325, 334, 340, 386
Sales returns. .306, 309-313, 328, 330, 332, 333, 336, 338-340, 342, 344-346, 350, 354, 357, 386, 413, 417, 422
scrap value....157, 170
SEC....24, 28, 261, 300
Securities and Exchange Act of 1934....24
Securities and Exchange Commission....19, 23-25, 28, 261
selling expenses....293, 320, 326, 327, 331-333, 336, 340, 350, 353, 417, 423
service companies....33, 34, 53, 59, 282, 304
service potential....152
shareholders....33, 60
Simple journal entry....124
Single proprietorship....32, 53, 55, 59, 60, 63
solvency....34, 37, 39, 53, 59, 62, 74, 86, 191, 360
stable dollar assumption....257, 286, 294, 295
statement of cash flows....16, 30, 34, 38, 39, 41, 54, 60, 61, 78, 145, 275
statement of retained earnings....16, 30, 34-37, 39, 54, 56, 57, 60, 61, 65, 67, 68, 72, 76, 78, 145, 190, 192, 195-200, 225, 227, 231-235, 240, 244, 245, 248, 251, 253, 259, 275, 332-335, 346, 350, 355, 360-362
stockholders 16, 21, 23, 27, 33-40, 42-49, 51-55, 57-62, 64, 65, 68, 69, 71, 72, 74-76, 78-82, 85, 86, 89-93, 104, 106-109, 113, 117, 118, 120, 123-125, 127, 140, 143, 147, 167, 178, 186, 191, 192, 197, 200, 202, 216-219, 222, 223, 226, 229, 231, 232, 238, 252, 259, 261-263, 275, 276, 281, 335, 347, 348, 352, 353, 363
stockholders' equity.....36, 42-44, 46-48, 51, 52, 58, 65, 68, 69, 71, 72, 78-82, 85, 86, 90-93, 113, 117, 118, 123, 124, 127, 143, 191, 192, 197, 200, 216-219, 223, 226, 229, 231, 232, 238, 252, 259, 261, 275, 281, 335
stockholders’ equity....37-40, 42, 44-49, 52-55, 58-62, 64, 74-76, 147
straight-line....157, 158, 170, 174, 257, 281
Summa de Arithmetica....14
summary of transactions....41, 44, 51, 57, 60, 65, 66, 68-70, 72, 75, 80
T-account....124
Tax services....16, 19
Taxes withheld from employees....222, 231, 238
Temporary accounts....124
Textbook Equity....2, 3
time periods....41, 59, 62, 147, 170, 257, 259, 260, 286, 290
Timeliness....274, 286, 292, 295, 297
Trade Discount....308, 309, 340, 341, 344

transaction...**39-48, 53, 56, 59-64, 66, 68-70, 72, 75, 79-83, 86-104, 106, 107, 115, 118, 123-125, 128-130, 145, 149, 150, 153, 155, 181, 184, 185, 191, 258-261, 263, 286, 296, 300, 301, 306, 317, 320, 329, 353, 377, 410, 411**
Transportation-In account....**319, 340**
unclassified balance sheet....**216, 217, 231, 233**
unclassified income statement....**324, 325, 340, 357**
unearned revenue....**149, 160, 171, 173**
Unearned revenues **222, 231**
verifiability....**275, 276, 286, 292, 295, 297**
wholesalers....**304, 308, 339, 340, 360, 370**
work sheet **87, 117, 190-193, 195-197, 199, 200, 202-204, 224-227, 229, 231-237, 241, 243, 244, 246-248, 251, 253, 303, 304, 331-333, 335, 336, 346, 350, 355**
work sheet **87, 200**

End of Volume 1, Chapters 1 - 8.

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