

THE ROLE AND ENVIRONMENT OF MANAGERIAL FINANCE

LEARNING GOALS

- LG1** Define *finance*, the major areas of finance and the career opportunities available in this field, and the legal forms of business organization.
- LG2** Describe the managerial finance function and its relationship to economics and accounting.
- LG3** Identify the primary activities of the financial manager within the firm.
- LG4** Explain why wealth maximization, rather than profit maximization, is the firm's goal and how the agency issue is related to it.
- LG5** Understand the relationship between financial institutions and markets, and the role and operations of the money and capital markets.
- LG6** Discuss the fundamentals of business taxation of ordinary income and capital gains, and explain the treatment of tax losses.

Across the Disciplines WHY THIS CHAPTER MATTERS TO YOU

Accounting: You need to understand the relationships between the firm's accounting and finance functions; how the financial statements you prepare will be used for making investment and financing decisions; ethical behavior by those responsible for a firm's funds; what agency costs are and why the firm must bear them; and how to calculate the tax effects of proposed transactions.

Information systems: You need to understand the organization of the firm; why finance personnel require both historical and projected data to support investment and financing decisions; and what data are necessary for determining the firm's tax liability.

Management: You need to understand the legal forms of business organization; the tasks that will be performed by finance

personnel; the goal of the firm; the issue of management compensation; the role of ethics in the firm; the agency problem; and the firm's relationship to various financial institutions and markets.

Marketing: You need to understand how the activities you pursue will be affected by the finance function, such as the firm's cash and credit management policies; the role of ethics in promoting a sound corporate image; and the role the financial markets play in the firm's ability to raise capital for new projects.

Operations: You need to understand the organization of the firm and of the finance function in particular; why maximizing profit is not the main goal of the firm; the role of financial institutions and markets in providing funds for the firm's production capacity; and the agency problem and the role of ethics.

STARBUCKS

KEEPING STARBUCKS HOT AND STRONG

Sometimes it seems that there's a **Starbucks** on every corner—and now in supermarkets and hospitals, too. The company that revolutionized the way we think about coffee now has over 4,800 retail locations worldwide and 15 million customers lining up for lattes and other concoctions each week.

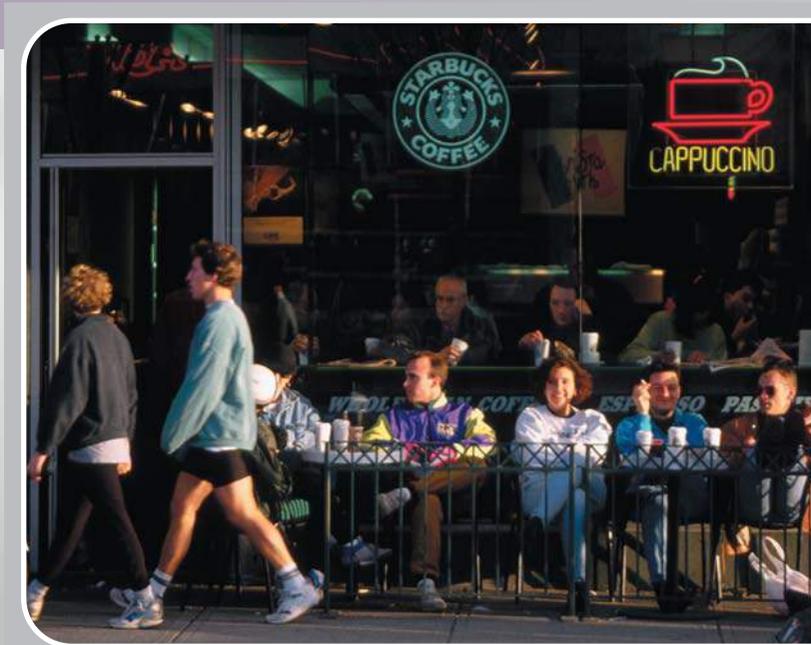
The chain's success is tied to somewhat unusual business strategies. Its mission statement emphasizes creating a better work environment for employees first, then satisfying customers and promoting good corporate citizenship within its communities. For example, Starbucks was one of the first companies to offer part-time employees health benefits and equity (ownership). The goal is to create an experience that builds trust with the customer. Profits are among the last of the company's guiding principles.

Starbucks' bond with employees and customers has translated into sales and earnings as strong as its coffee. Annual sales growth from 1997 to 2000 ranged from 28 to almost 40 percent, and annual growth in earnings per share ranged from about 12 to 81 percent. A share of Starbucks' stock purchased in November 1996 increased in value by 17 percent over the five years ended November 2001. That compares favorably with the 15 percent gain realized by its industry peers and the 7 percent gain for companies in the Standard & Poor's 500 Index.

Despite the U.S. economic slowdown in 2001, the company expects to keep its growth perking over the next five years. Although some fear that Starbucks has saturated the domestic market, same-store sales keep rising as the company introduces new products. Starbucks has even become quite successful in unexpected markets, such as Japan.

Accomplishing its business objectives while building shareholder value requires sound financial management—raising funds to open new stores and build more roasting plants, deciding when and where to put them, managing cash collections, reducing purchasing costs, and dealing with fluctuations in the value of foreign currency and with other risks as it buys coffee beans and expands overseas. To finance its growth, Starbucks went public (sold common stock) in 1992, and its stock trades on the Nasdaq national market. Its next securities offering was the sale of convertible bonds, debt securities that could be converted into common stock at a specified price. Those bonds were successfully converted into common stock by 1996, and today the company has almost no long-term debt.

Like Starbucks, every company must deal with many different issues to keep its financial condition solid. Chapter 1 introduces managerial finance and its key role in helping an organization meet its financial and business objectives.





1.1 Finance and Business

The field of finance is broad and dynamic. It directly affects the lives of every person and every organization. There are many areas and career opportunities in the field of finance. Basic principles of finance, such as those you will learn in this textbook, can be universally applied in business organizations of different types.

What Is Finance?

finance
The art and science of managing money.

Finance can be defined as the art and science of managing money. Virtually all individuals and organizations earn or raise money and spend or invest money. Finance is concerned with the process, institutions, markets, and instruments involved in the transfer of money among individuals, businesses, and governments. Most adults will benefit from an understanding of finance, which will enable them to make better personal financial decisions. Those who work in financial jobs will benefit by being able to interface effectively with the firm's financial personnel, processes, and procedures.

Major Areas and Opportunities in Finance

The major areas of finance can be summarized by reviewing the career opportunities in finance. These opportunities can, for convenience, be divided into two broad parts: financial services and managerial finance.

Financial Services

financial services
The part of finance concerned with the design and delivery of advice and financial products to individuals, business, and government.



Financial services is the area of finance concerned with the design and delivery of advice and financial products to individuals, business, and government. It involves a variety of interesting career opportunities within the areas of banking and related institutions, personal financial planning, investments, real estate, and insurance. Career opportunities available in each of these areas are described at this textbook's Web site at www.aw.com/gitman.

Managerial Finance

managerial finance
Concerns the duties of the financial manager in the business firm.

financial manager
Actively manages the financial affairs of any type of business, whether financial or nonfinancial, private or public, large or small, profit-seeking or not-for-profit.

Managerial finance is concerned with the duties of the financial manager in the business firm. **Financial managers** actively manage the financial affairs of any type of businesses—financial and nonfinancial, private and public, large and small, profit-seeking and not-for-profit. They perform such varied financial tasks as planning, extending credit to customers, evaluating proposed large expenditures, and raising money to fund the firm's operations. In recent years, the changing economic and regulatory environments have increased the importance and complexity of the financial manager's duties. As a result, many top executives have come from the finance area.

Another important recent trend has been the globalization of business activity. U.S. corporations have dramatically increased their sales, purchases, investments, and fund raising in other countries, and foreign corporations have likewise

increased these activities in the United States. These changes have created a need for financial managers who can help a firm to manage cash flows in different currencies and protect against the risks that naturally arise from international transactions. Although these changes make the managerial finance function more complex, they can also lead to a more rewarding and fulfilling career.

Legal Forms of Business Organization

The three most common legal forms of business organization are the *sole proprietorship*, the *partnership*, and the *corporation*. Other specialized forms of business organization also exist. Sole proprietorships are the most numerous. However, corporations are overwhelmingly dominant with respect to receipts and net profits. Corporations are given primary emphasis in this textbook.

Sole Proprietorships

A **sole proprietorship** is a business owned by one person who operates it for his or her own profit. About 75 percent of all business firms are sole proprietorships. The typical sole proprietorship is a small business, such as a bike shop, personal trainer, or plumber. The majority of sole proprietorships are found in the wholesale, retail, service, and construction industries.

Typically, the proprietor, along with a few employees, operates the proprietorship. He or she normally raises capital from personal resources or by borrowing and is responsible for all business decisions. The sole proprietor has **unlimited liability**; his or her total wealth, not merely the amount originally invested, can be taken to satisfy creditors. The key strengths and weaknesses of sole proprietorships are summarized in Table 1.1.

Partnerships

A **partnership** consists of two or more owners doing business together for profit. Partnerships account for about 10 percent of all businesses, and they are typically larger than sole proprietorships. Finance, insurance, and real estate firms are the most common types of partnership. Public accounting and stock brokerage partnerships often have large numbers of partners.

Most partnerships are established by a written contract known as **articles of partnership**. In a *general* (or *regular*) *partnership*, all partners have unlimited liability, and each partner is legally liable for all of the debts of the partnership. Strengths and weaknesses of partnerships are summarized in Table 1.1.

Corporations

A **corporation** is an artificial being created by law. Often called a “legal entity,” a corporation has the powers of an individual in that it can sue and be sued, make and be party to contracts, and acquire property in its own name. Although only about 15 percent of all businesses are incorporated, the corporation is the dominant form of business organization in terms of receipts and profits. It accounts for nearly 90 percent of business receipts and 80 percent of net profits. Although

sole proprietorship

A business owned by one person and operated for his or her own profit.

unlimited liability

The condition of a sole proprietorship (or general partnership) allowing the owner's total wealth to be taken to satisfy creditors.

partnership

A business owned by two or more people and operated for profit.

articles of partnership

The written contract used to formally establish a business partnership.

corporation

An artificial being created by law (often called a “legal entity”).

Hint For many small corporations, as well as small proprietorships and partnerships, there is no access to financial markets. In addition, whenever the owners take out a loan, they usually must personally cosign the loan.

TABLE 1.1 Strengths and Weaknesses of the Common Legal Forms of Business Organization

	Sole proprietorship	Partnership	Corporation
Strengths	<ul style="list-style-type: none"> • Owner receives all profits (and sustains all losses) • Low organizational costs • Income included and taxed on proprietor's personal tax return • Independence • Secrecy • Ease of dissolution 	<ul style="list-style-type: none"> • Can raise more funds than sole proprietorships • Borrowing power enhanced by more owners • More available brain power and managerial skill • Income included and taxed on partner's tax return 	<ul style="list-style-type: none"> • Owners have <i>limited liability</i>, which guarantees that they cannot lose more than they invested • Can achieve large size via sale of stock • Ownership (stock) is readily transferable • Long life of firm • Can hire professional managers • Has better access to financing • Receives certain tax advantages
Weaknesses	<ul style="list-style-type: none"> • Owner has <i>unlimited liability</i>—total wealth can be taken to satisfy debts • Limited fund-raising power tends to inhibit growth • Proprietor must be jack-of-all-trades • Difficult to give employees long-run career opportunities • Lacks continuity when proprietor dies 	<ul style="list-style-type: none"> • Owners have <i>unlimited liability</i> and may have to cover debts of other partners • Partnership is dissolved when a partner dies • Difficult to liquidate or transfer partnership 	<ul style="list-style-type: none"> • Taxes generally higher, because corporate income is taxed, and dividends paid to owners are also taxed • More expensive to organize than other business forms • Subject to greater government regulation • Lacks secrecy, because stockholders must receive financial reports

stockholders

The owners of a corporation, whose ownership, or *equity*, is evidenced by either common stock or preferred stock.

common stock

The purest and most basic form of corporate ownership.

dividends

Periodic distributions of earnings to the stockholders of a firm.

board of directors

Group elected by the firm's stockholders and having ultimate authority to guide corporate affairs and make general policy.

corporations are involved in all types of businesses, manufacturing corporations account for the largest portion of corporate business receipts and net profits. The key strengths and weaknesses of large corporations are summarized in Table 1.1.

The owners of a corporation are its **stockholders**, whose ownership, or *equity*, is evidenced by either common stock or preferred stock.¹ These forms of ownership are defined and discussed in Chapter 7; at this point suffice it to say that **common stock** is the purest and most basic form of corporate ownership. Stockholders expect to earn a return by receiving **dividends**—periodic distributions of earnings—or by realizing gains through increases in share price.

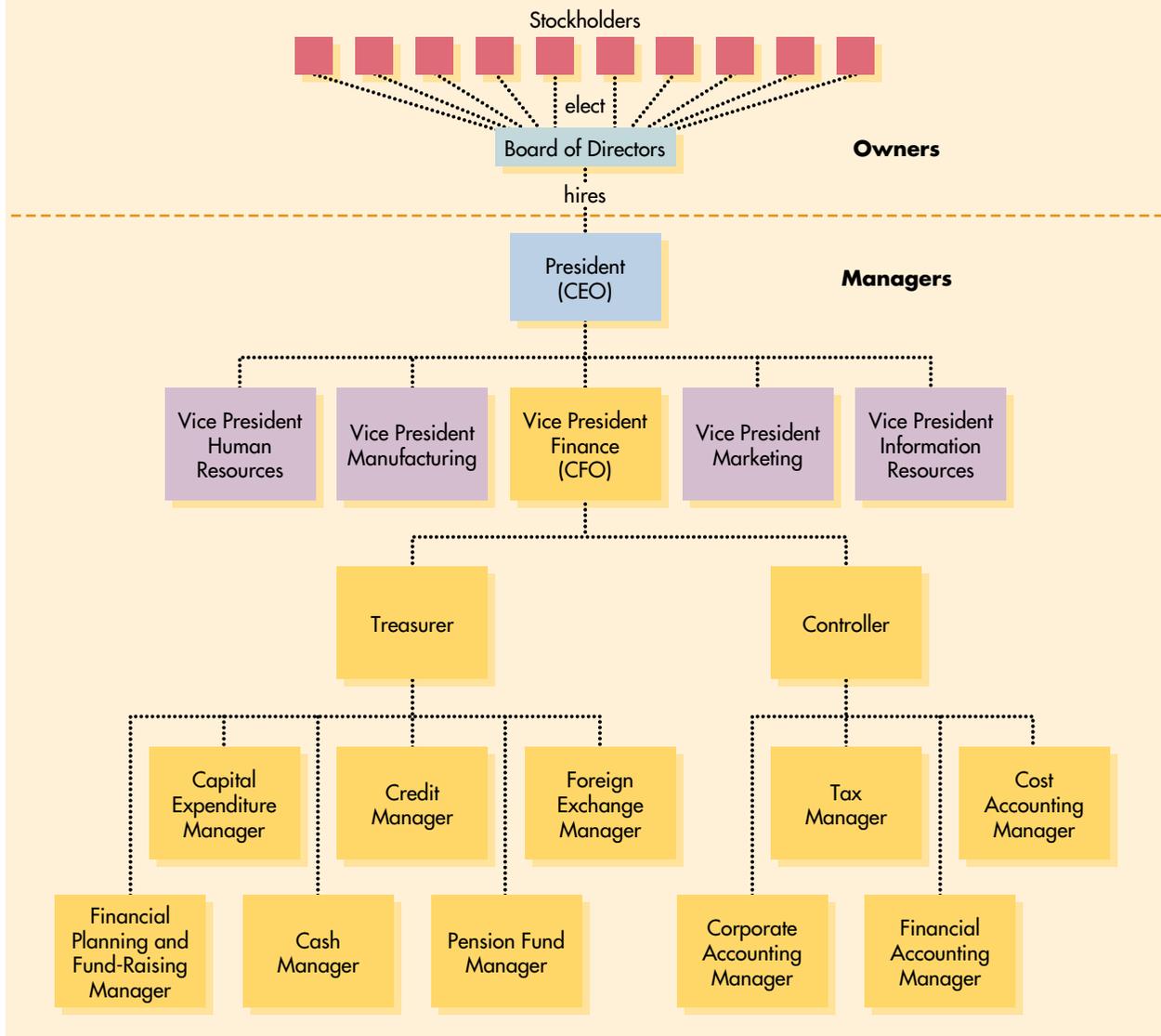
As noted in the upper portion of Figure 1.1, the stockholders vote periodically to elect the members of the board of directors and to amend the firm's corporate charter. The **board of directors** has the ultimate authority in guiding corporate affairs and in making general policy. The directors include key corporate personnel as well as outside individuals who typically are successful businesspeople and executives of other major organizations. Outside directors for major corporations are generally paid an annual fee of \$10,000 to \$20,000 or more. Also, they are

1. Some corporations do not have stockholders but rather have "members" who often have rights similar to those of stockholders—that is, they are entitled to vote and receive dividends. Examples include mutual savings banks, credit unions, mutual insurance companies, and a whole host of charitable organizations.

FIGURE 1.1

Corporate Organization

The general organization of a corporation and the finance function (which is shown in yellow)



president or chief executive officer (CEO)
Corporate official responsible for managing the firm's day-to-day operations and carrying out the policies established by the board of directors.

frequently granted options to buy a specified number of shares of the firm's stock at a stated—and often attractive—price.

The **president or chief executive officer (CEO)** is responsible for managing day-to-day operations and carrying out the policies established by the board. The CEO is required to report periodically to the firm's directors.

It is important to note the division between owners and managers in a large corporation, as shown by the dashed horizontal line in Figure 1.1. This separation and some of the issues surrounding it will be addressed in the discussion of *the agency issue* later in this chapter.

Other Limited Liability Organizations

limited partnership (LP)
 S corporation (S corp)
 limited liability corporation (LLC)
 limited liability partnership (LLP)
 See Table 1.2.

A number of other organizational forms provide owners with limited liability. The most popular are **limited partnerships (LPs)**, **S corporations (S corps)**, **limited liability corporations (LLCs)**, and **limited liability partnerships (LLPs)**. Each represents a specialized form or blending of the characteristics of the organizational forms described before. What they have in common is that their owners enjoy limited liability, and they typically have fewer than 100 owners. Each of these limited liability organizations is briefly described in Table 1.2.

The Study of Managerial Finance

An understanding of the theories, concepts, techniques, and practices presented throughout this text will fully acquaint you with the financial manager's activities and decisions. Because most business decisions are measured in financial terms, the financial manager plays a key role in the operation of the firm. People in all areas of responsibility—accounting, information systems, management, marketing, operations, and so forth—need a basic understanding of the managerial finance function.

All managers in the firm, regardless of their job descriptions, work with financial personnel to justify laborpower requirements, negotiate operating budgets, deal with financial performance appraisals, and sell proposals at least partly on the basis of their financial merits. Clearly, those managers who understand the finan-

TABLE 1.2 Other Limited Liability Organizations

Organization	Description
Limited partnership (LP)	A partnership in which one or more partners have limited liability as long as at least <i>one</i> partner (the general partner) has unlimited liability. The <i>limited partners</i> cannot take an active role in the firm's management; they are passive investors.
S corporation (S corp)	A tax-reporting entity that (under Subchapter S of the Internal Revenue Code) allows certain corporations with 75 or fewer stockholders to choose to be taxed as partnerships. Its stockholders receive the organizational benefits of a corporation and the tax advantages of a partnership. But S corps lose certain tax advantages related to pension plans.
Limited liability corporation (LLC)	Permitted in most states, the LLC gives its owners, like those of S corps, limited liability and taxation as a partnership. But unlike an S corp, the LLC can own more than 80% of another corporation, and corporations, partnerships, or non-U.S. residents can own LLC shares. LLCs work well for corporate joint ventures or projects developed through a subsidiary.
Limited liability partnership (LLP) ^a	A partnership permitted in many states; governing statutes vary by state. All LLP partners have limited liability. They are liable for their own acts of malpractice, not for those of other partners. The LLP is taxed as a partnership. LLPs are frequently used by legal and accounting professionals.

^aIn recent years this organizational form has begun to replace *professional corporations* or *associations*—corporations formed by groups of professionals such as attorneys and accountants that provide limited liability except for that related to malpractice—because of the tax advantages it offers.

TABLE 1.3 Career Opportunities in Managerial Finance

Position	Description
Financial analyst	Primarily prepares the firm's financial plans and budgets. Other duties include financial forecasting, performing financial comparisons, and working closely with accounting.
Capital expenditures manager	Evaluates and recommends proposed asset investments. May be involved in the financial aspects of implementing approved investments.
Project finance manager	In large firms, arranges financing for approved asset investments. Coordinates consultants, investment bankers, and legal counsel.
Cash manager	Maintains and controls the firm's daily cash balances. Frequently manages the firm's cash collection and disbursement activities and short-term investments; coordinates short-term borrowing and banking relationships.
Credit analyst/manager	Administers the firm's credit policy by evaluating credit applications, extending credit, and monitoring and collecting accounts receivable.
Pension fund manager	In large companies, oversees or manages the assets and liabilities of the employees' pension fund.
Foreign exchange manager	Manages specific foreign operations and the firm's exposure to fluctuations in exchange rates.

cial decision-making process will be better able to address financial concerns and will therefore more often get the resources they need to attain their own goals. The “Across the Disciplines” element that appears on each chapter-opening page should help you understand some of the many interactions between managerial finance and other business careers.

As you study this text, you will learn about the career opportunities in managerial finance, which are briefly described in Table 1.3. Although this text focuses on publicly held profit-seeking firms, the principles presented here are equally applicable to private and not-for-profit organizations. The decision-making principles developed in this text can also be applied to personal financial decisions. I hope that this first exposure to the exciting field of finance will provide the foundation and initiative for further study and possibly even a future career.

Review Questions

- 1-1 What is *finance*? Explain how this field affects the lives of everyone and every organization.
- 1-2 What is the *financial services* area of finance? Describe the field of *managerial finance*.
- 1-3 Which legal form of business organization is most common? Which form is dominant in terms of business receipts and net profits?
- 1-4 Describe the roles and the basic relationship among the major parties in a corporation—stockholders, board of directors, and president. How are corporate owners compensated?
- 1-5 Briefly name and describe some organizational forms other than corporations that provide owners with limited liability.
- 1-6 Why is the study of managerial finance important regardless of the specific area of responsibility one has within the business firm?



1.2 The Managerial Finance Function

People in all areas of responsibility within the firm must interact with finance personnel and procedures to get their jobs done. For financial personnel to make useful forecasts and decisions, they must be willing and able to talk to individuals in other areas of the firm. The managerial finance function can be broadly described by considering its role within the organization, its relationship to economics and accounting, and the primary activities of the financial manager.

treasurer

The firm's chief financial manager, who is responsible for the firm's financial activities, such as financial planning and fund raising, making capital expenditure decisions, and managing cash, credit, the pension fund, and foreign exchange.

controller

The firm's chief accountant, who is responsible for the firm's accounting activities, such as corporate accounting, tax management, financial accounting, and cost accounting.

Hint A controller is sometimes referred to as a *comptroller*. Not-for-profit and governmental organizations frequently use the title of *comptroller*.

foreign exchange manager

The manager responsible for monitoring and managing the firm's exposure to loss from currency fluctuations.

marginal analysis

Economic principle that states that financial decisions should be made and actions taken only when the added benefits exceed the added costs.

Organization of the Finance Function

The size and importance of the managerial finance function depend on the size of the firm. In small firms, the finance function is generally performed by the accounting department. As a firm grows, the finance function typically evolves into a separate department linked directly to the company president or CEO through the chief financial officer (CFO). The lower portion of the organizational chart in Figure 1.1 (on page 7) shows the structure of the finance function in a typical medium-to-large-size firm.

Reporting to the CFO are the treasurer and the controller. The **treasurer** (the chief financial manager) is commonly responsible for handling financial activities, such as financial planning and fund raising, making capital expenditure decisions, managing cash, managing credit activities, managing the pension fund, and managing foreign exchange. The **controller** (the chief accountant) typically handles the accounting activities, such as corporate accounting, tax management, financial accounting, and cost accounting. The treasurer's focus tends to be more external, the controller's focus more internal. *The activities of the treasurer, or financial manager, are the primary concern of this text.*

If international sales or purchases are important to a firm, it may well employ one or more finance professionals whose job is to monitor and manage the firm's exposure to loss from currency fluctuations. A trained financial manager can "hedge," or protect against such a loss, at reasonable cost by using a variety of financial instruments. These **foreign exchange managers** typically report to the firm's treasurer.

Relationship to Economics

The field of finance is closely related to economics. Financial managers must understand the economic framework and be alert to the consequences of varying levels of economic activity and changes in economic policy. They must also be able to use economic theories as guidelines for efficient business operation. Examples include supply-and-demand analysis, profit-maximizing strategies, and price theory. The primary economic principle used in managerial finance is **marginal analysis**, the principle that financial decisions should be made and actions taken only when the added benefits exceed the added costs. Nearly all financial decisions ultimately come down to an assessment of their marginal benefits and marginal costs.

EXAMPLE ▼

Jamie Teng is a financial manager for Nord Department Stores, a large chain of upscale department stores operating primarily in the western United States. She is currently trying to decide whether to replace one of the firm's online computers with a new, more sophisticated one that would both speed processing and handle a larger volume of transactions. The new computer would require a cash outlay of \$80,000, and the old computer could be sold to net \$28,000. The total benefits from the new computer (measured in today's dollars) would be \$100,000. The benefits over a similar time period from the old computer (measured in today's dollars) would be \$35,000. Applying marginal analysis, Jamie organizes the data as follows:

Benefits with new computer	\$100,000	
Less: Benefits with old computer	<u>35,000</u>	
(1) Marginal (added) benefits		\$65,000
Cost of new computer	\$ 80,000	
Less: Proceeds from sale of old computer	<u>28,000</u>	
(2) Marginal (added) costs		<u>52,000</u>
Net benefit [(1) – (2)]		<u>\$13,000</u>

Because the marginal (added) benefits of \$65,000 exceed the marginal (added) costs of \$52,000, Jamie recommends that the firm purchase the new computer to replace the old one. The firm will experience a net benefit of \$13,000 as a result of this action.

Relationship to Accounting

The firm's finance (treasurer) and accounting (controller) activities are closely related and generally overlap. Indeed, managerial finance and accounting are not often easily distinguishable. In small firms the controller often carries out the finance function, and in large firms many accountants are closely involved in various finance activities. However, there are two basic differences between finance and accounting; one is related to the emphasis on cash flows and the other to decision making.

Emphasis on Cash Flows

The accountant's primary function is to develop and report data for measuring the performance of the firm, assessing its financial position, and paying taxes. Using certain standardized and generally accepted principles, the accountant prepares financial statements that recognize revenue at the time of sale (whether payment has been received or not) and recognize expenses when they are incurred. This approach is referred to as the **accrual basis**.

The financial manager, on the other hand, places primary emphasis on *cash flows*, the intake and outgo of cash. He or she maintains the firm's solvency by planning the cash flows necessary to satisfy its obligations and to acquire assets needed to achieve the firm's goals. The financial manager uses this **cash basis** to recognize the revenues and expenses only with respect to actual inflows and outflows of cash.

accrual basis

In preparation of financial statements, recognizes revenue at the time of sale and recognizes expenses when they are incurred.

cash basis

Recognizes revenues and expenses only with respect to actual inflows and outflows of cash.

Regardless of its profit or loss, a firm must have a sufficient flow of cash to meet its obligations as they come due.

EXAMPLE Nassau Corporation, a small yacht dealer, sold one yacht for \$100,000 in the calendar year just ended. The yacht was purchased during the year at a total cost of \$80,000. Although the firm paid in full for the yacht during the year, at year-end it has yet to collect the \$100,000 from the customer. The accounting view and the financial view of the firm's performance during the year are given by the following income and cash flow statements, respectively.

Accounting View (accrual basis)		Financial View (cash basis)	
Nassau Corporation Income Statement for the Year Ended 12/31		Nassau Corporation Cash Flow Statement for the Year Ended 12/31	
Sales revenue	\$100,000	Cash inflow	\$ 0
Less: Costs	<u>80,000</u>	Less: Cash outflow	<u>80,000</u>
Net profit	<u>\$ 20,000</u>	Net cash flow	<u>(\$80,000)</u>

In an accounting sense Nassau Corporation is profitable, but in terms of actual cash flow it is a financial failure. Its lack of cash flow resulted from the uncollected account receivable of \$100,000. Without adequate cash inflows to meet its obligations, the firm will not survive, regardless of its level of profits.

Hint The primary emphasis of accounting is on accrual methods; the primary emphasis of financial management is on cash flow methods.

As the example shows, accrual accounting data do not fully describe the circumstances of a firm. Thus the financial manager must look beyond financial statements to obtain insight into existing or developing problems. Of course, accountants are well aware of the importance of cash flows, and financial managers use and understand accrual-based financial statements. Nevertheless, the financial manager, by concentrating on cash flows, should be able to avoid insolvency and achieve the firm's financial goals.

Decision Making

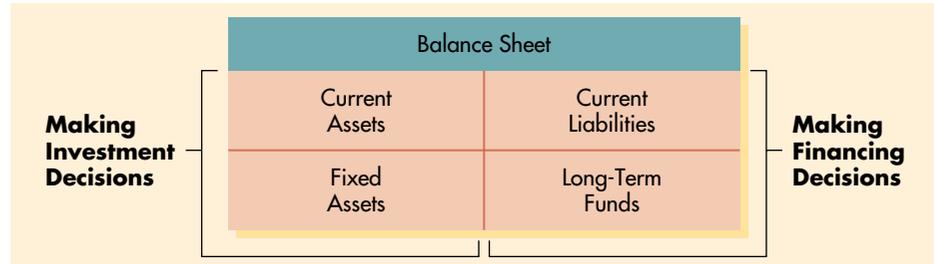
The second major difference between finance and accounting has to do with decision making. Accountants devote most of their attention to the *collection and presentation of financial data*. Financial managers evaluate the accounting statements, develop additional data, and *make decisions* on the basis of their assessment of the associated returns and risks. Of course, this does not mean that accountants never make decisions or that financial managers never gather data. Rather, the primary focuses of accounting and finance are distinctly different.

Primary Activities of the Financial Manager

In addition to ongoing involvement in financial analysis and planning, the financial manager's primary activities are making investment decisions and making financing decisions. Investment decisions determine both the mix and the type of

FIGURE 1.2

Financial Activities
Primary activities of the financial manager



assets held by the firm. Financing decisions determine both the mix and the type of financing used by the firm. These sorts of decisions can be conveniently viewed in terms of the firm's balance sheet, as shown in Figure 1.2. However, the decisions are actually made on the basis of their cash flow effects on the overall value of the firm.

Review Questions

- 1-7 What financial activities is the treasurer, or financial manager, responsible for handling in the mature firm?
- 1-8 What is the primary economic principle used in managerial finance?
- 1-9 What are the major differences between accounting and finance with respect to emphasis on cash flows and decision making?
- 1-10 What are the two primary activities of the financial manager that are related to the firm's balance sheet?



1.3 Goal of the Firm

As noted earlier, the owners of a corporation are normally distinct from its managers. Actions of the financial manager should be taken to achieve the objectives of the firm's owners, its stockholders. In most cases, if financial managers are successful in this endeavor, they will also achieve their own financial and professional objectives. Thus financial managers need to know what the objectives of the firm's owners are.

Maximize Profit?

Some people believe that the firm's objective is always to maximize profit. To achieve this goal, the financial manager would take only those actions that were expected to make a major contribution to the firm's overall profits. For each alternative being considered, the financial manager would select the one that is expected to result in the highest monetary return.

Corporations commonly measure profits in terms of **earnings per share (EPS)**, which represent the amount earned during the period on behalf of each outstanding share of common stock. EPS are calculated by dividing the period's total earnings available for the firm's common stockholders by the number of shares of common stock outstanding.

earnings per share (EPS)
The amount earned during the period on behalf of each outstanding share of common stock, calculated by dividing the period's total earnings available for the firm's common stockholders by the number of shares of common stock outstanding.

EXAMPLE Nick Dukakis, the financial manager of Neptune Manufacturing, a producer of marine engine components, is choosing between two investments, Rotor and Valve. The following table shows the EPS that each investment is expected to have over its 3-year life.

Investment	Earnings per share (EPS)			
	Year 1	Year 2	Year 3	Total for years 1, 2, and 3
Rotor	\$1.40	\$1.00	\$0.40	\$2.80
Valve	0.60	1.00	1.40	3.00

In terms of the profit maximization goal, Valve would be preferred over Rotor, because it results in higher total earnings per share over the 3-year period (\$3.00 EPS compared with \$2.80 EPS).

But is profit maximization a reasonable goal? No. It fails for a number of reasons: It ignores (1) the timing of returns, (2) cash flows available to stockholders, and (3) risk.²

Timing

Because the firm can earn a return on funds it receives, *the receipt of funds sooner rather than later is preferred*. In our example, in spite of the fact that the total earnings from Rotor are smaller than those from Valve, Rotor provides much greater earnings per share in the first year. The larger returns in year 1 could be reinvested to provide greater future earnings.

Cash Flows

Profits do *not* necessarily result in cash flows available to the stockholders. Owners receive cash flow in the form of either cash dividends paid them or the proceeds from selling their shares for a higher price than initially paid. Greater EPS do not necessarily mean that a firm's board of directors will vote to increase dividend payments.

Furthermore, higher EPS do not necessarily translate into a higher stock price. Firms sometimes experience earnings increases without any correspondingly favorable change in stock price. Only when earnings increases are accompanied by increased future cash flows would a higher stock price be expected. For example, a firm in a highly competitive technology-driven business could increase its earnings by significantly reducing its research and development expenditures. As a result the firm's expenses would be reduced, thereby increasing its profits. But because of its impaired competitive position, the firm's stock price would drop, as many well-informed investors sell the stock in recognition of lower future cash flows. In this case, the earnings increase was accompanied by lower future cash flows and therefore a lower stock price.

2. Another criticism of profit maximization is the potential for profit manipulation through the creative use of elective accounting practices.

risk

The chance that actual outcomes may differ from those expected.

Hint This is one of the most important concepts in the book. Investors who seek to avoid risk will *always* require a bigger reward for taking bigger risks.

risk-averse

Seeking to avoid risk.

Risk

Profit maximization also disregards **risk**—the chance that actual outcomes may differ from those expected. A basic premise in managerial finance is that a tradeoff exists between return (cash flow) and risk. *Return and risk are in fact the key determinants of share price, which represents the wealth of the owners in the firm.*

Cash flow and risk affect share price differently: Higher cash flow is generally associated with a higher share price. Higher risk tends to result in a lower share price because the stockholder must be compensated for the greater risk. For example, if a lawsuit claiming significant damages is filed against a company, its share price typically will drop immediately. This occurs not because of any near-term cash flow reduction but in response to the firm's increased risk—there's a chance that the firm will have to pay out a large amount of cash some time in the future to eliminate or fully satisfy the claim. Simply put, the increased risk reduces the firm's share price. In general, stockholders are **risk-averse**—that is, they want to avoid risk. When risk is involved, stockholders expect to earn higher rates of return on investments of higher risk and lower rates on lower-risk investments. The key point, which will be fully developed in Chapter 5, is that differences in risk can significantly affect the value of an investment.

Because profit maximization does not achieve the objectives of the firm's owners, it should *not* be the goal of the financial manager.

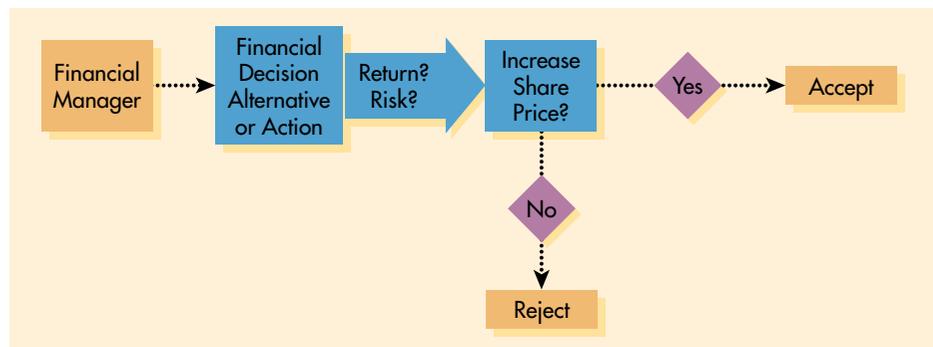
Maximize Shareholder Wealth

The goal of the firm, and therefore of all managers and employees, is to *maximize the wealth of the owners for whom it is being operated*. The wealth of corporate owners is measured by the share price of the stock, which in turn is based on the timing of returns (cash flows), their magnitude, and their risk. When considering each financial decision alternative or possible action in terms of its impact on the share price of the firm's stock, *financial managers should accept only those actions that are expected to increase share price*. Figure 1.3 depicts this process. Because share price represents the owners' wealth in the firm, maximizing share price will maximize owner wealth. Note that *return (cash flows) and risk are the key decision variables in maximizing owner wealth*. It is important to recognize that earnings per share (EPS), because they are viewed as an indicator of the

FIGURE 1.3

Share Price Maximization

Financial decisions and share price



In Practice

FOCUS ON PRACTICE Creating Shareholder Value and WaMu

Once a small Northwest thrift, **Washington Mutual** (WaMu) is now the nation's largest savings institution and the seventh largest U.S. bank. Its financial performance has been as exceptional as its rapid growth. Under the financial leadership of CFO William Longbrake, its assets grew 10-fold (to \$220 billion) in a recent 5-year period, earnings rose an average of 18.6 percent per year, and the stock price nearly tripled.

How has WaMu's management team increased shareholder value so much? Four major acquisitions played an important role in adding branch networks. Greater penetration in existing markets has also been a driver. Another differentiating factor is the "pay for performance" plan that Longbrake introduced. The compensation plan encourages all employees, from managers to tellers, to cross-

sell products and to give customers the highest level of service possible. As a result, the number of customers and the profits per customer have soared, helped along by a clever advertising campaign that emphasizes WaMu's personal service.

But it's not enough to grow revenues if expenses aren't under control. At the same time as its revenues grew, the bank's operating efficiency improved significantly, the best among WaMu's major competitors.

Longbrake and his financial managers continually look for ways to boost revenues and improve earnings. A successful campaign to increase noninterest income from depositor and other retail banking fees, which are not subject to interest-rate movements, lessened the effect on earnings of changes in interest

rates. Another strategy was to sell off all but the most profitable single-family mortgages in the bank's loan portfolio. In spite of interest-rate fluctuations in 2000, WaMu earned \$1.9 billion—its most profitable year ever. The bank continued to post record results in 2001, as interest rates fell, by increasing mortgage origination and refinancing activities. As a result, the firm even increased cash dividends at a time when many companies were cutting them. Clearly, Longbrake and his managers' actions were effective in creating value for WaMu's shareholders.

Sources: Adapted from Stephen Barr, "The Revenue Revolution at Washington Mutual," *CFO*, October 2001, downloaded from www.cfo.com; "Washington Mutual Profits Rise 84 Percent," October 16, 2001, *Reuters Business Report*, downloaded from [eLibrary, ask.elibrary.com](http://eLibrary.ask.elibrary.com); Washington Mutual Web site, www.wamu.com.

firm's future returns (cash flows), often appear to affect share price. Two important issues related to maximizing share price are economic value added (EVA[®]) and the focus on stakeholders.

Economic Value Added (EVA[®])

economic value added (EVA[®])
A popular measure used by many firms to determine whether an investment contributes positively to the owners' wealth; calculated by subtracting the cost of funds used to finance an investment from its after-tax operating profits.

Economic value added (EVA[®]) is a popular measure used by many firms to determine whether an investment—proposed or existing—contributes positively to the owners' wealth.³ EVA[®] is calculated by subtracting the cost of funds used to finance an investment from its after-tax operating profits. Investments with positive EVA[®]s increase shareholder value and those with negative EVA[®]s reduce shareholder value. Clearly, only those investments with positive EVA[®]s are desirable. For example, the EVA[®] of an investment with after-tax operating profits of \$410,000 and associated financing costs of \$375,000 would be \$35,000 (i.e., \$410,000 – \$375,000). Because this EVA[®] is positive, the investment is expected to increase owner wealth and is therefore acceptable. (EVA[®]-type models are discussed in greater detail as part of the coverage of stock valuation in Chapter 7.)

3. For a good summary of economic value added (EVA[®]), see Shaun Tully, "The Real Key to Creating Wealth," *Fortune* (September 20, 1993), pp. 38–49.

What About Stakeholders?

stakeholders

Groups such as employees, customers, suppliers, creditors, owners, and others who have a direct economic link to the firm.

Although maximization of shareholder wealth is the primary goal, many firms broaden their focus to include the interests of *stakeholders* as well as shareholders. Stakeholders are groups such as employees, customers, suppliers, creditors, owners, and others who have a direct economic link to the firm. A firm with a *stakeholder focus* consciously avoids actions that would prove detrimental to stakeholders. The goal is not to maximize stakeholder well-being but to preserve it.

The stakeholder view does not alter the goal of maximizing shareholder wealth. Such a view is often considered part of the firm's "social responsibility." It is expected to provide long-run benefit to shareholders by maintaining positive stakeholder relationships. Such relationships should minimize stakeholder turnover, conflicts, and litigation. Clearly, the firm can better achieve its goal of shareholder wealth maximization by fostering cooperation with its other stakeholders, rather than conflict with them.

The Role of Ethics

In recent years, the ethics of actions taken by certain businesses have received major media attention. Examples include an agreement by American Express Co. in early 2002 to pay \$31 million to settle a sex- and age-discrimination lawsuit filed on behalf of more than 4,000 women who said they were denied equal pay and promotions; Enron Corp.'s key executives indicating to employee-shareholders in mid-2001 that the firm's then-depressed stock price would soon recover while, at the same time, selling their own shares and, not long after, taking the firm into bankruptcy; and Liggett & Meyers' early 1999 agreement to fund the payment of more than \$1 billion in smoking-related health claims.

ethics

Standards of conduct or moral judgment.

Clearly, these and similar actions have raised the question of **ethics**—standards of conduct or moral judgment. Today, the business community in general and the financial community in particular are developing and enforcing ethical standards. The goal of these ethical standards is to motivate business and market participants to adhere to both the letter and the spirit of laws and regulations concerned with business and professional practice. Most business leaders believe businesses actually strengthen their competitive positions by maintaining high ethical standards.

Considering Ethics

Robert A. Cooke, a noted ethicist, suggests that the following questions be used to assess the ethical viability of a proposed action.⁴

1. Is the action arbitrary or capricious? Does it unfairly single out an individual or group?
2. Does the action violate the moral or legal rights of any individual or group?
3. Does the action conform to accepted moral standards?
4. Are there alternative courses of action that are less likely to cause actual or potential harm?

4. Robert A. Cooke, "Business Ethics: A Perspective," in *Arthur Andersen Cases on Business Ethics* (Chicago: Arthur Andersen, September 1991), pp. 2 and 5.

In Practice

FOCUS ON ETHICS “Doing Well by Doing Good”

Hewlett-Packard (H-P) was founded in 1939 by Bill Hewlett and Dave Packard on the basis of principles of fair dealing and respect—long before anyone coined the expression “corporate social responsibility.” H-P credits its ongoing commitment to “doing well by doing good” as a major reason why employees, suppliers, customers, and shareholders seek it out. H-P is clear on its obligation to increase the market value of its common stock, yet it strives to maintain the integrity of each employee in every country in which it does business. Its “Standards of Business Conduct” include a provision that triggers immediate dismissal of any employee who is found to have told a lie. Its internal auditors are expected to adhere to all of these standards, which set forth the “highest principles of business

ethics and conduct,” according to H-P’s 2000 annual report.

Maximizing shareholder wealth is what some call a “moral imperative,” in that stockholders are owners with property rights, and in that managers as stewards are obliged to look out for owners’ interests. Many times, doing what is right is consistent with maximizing the stock price, but what if integrity causes a company to lose a contract or causes analysts to reduce the rating of the stock from “buy” to “sell”? The objective to maximize shareholder wealth holds, but company officers must do so within ethical constraints. Those constraints occasionally limit the alternative actions from which managers may choose. Some critics have mistakenly assumed that the objective of maximizing shareholder wealth is somehow the cause of unethical

behavior, ignoring the fact that *any* business goal might be cited as a factor pressuring individuals to be unethical.

U.S. business professionals have tended to operate from within a strong moral framework based on early-childhood moral development that takes place in families and religious institutions. This does not prevent all ethical lapses, obviously. But it is not surprising that chief financial officers declare that the number-1 personal attribute that finance grads need is ethics—which they rank above interpersonal skills, communication skills, decision-making ability, and computer skills. H-P is aware of this need and has institutionalized it in the company’s culture and policies.

Clearly, considering such questions before taking an action can help to ensure its ethical viability. Specifically, Cooke suggests that the impact of a proposed decision should be evaluated from a number of perspectives before it is finalized:

1. Are the rights of any stakeholder being violated?
2. Does the firm have any overriding duties to any stakeholder?
3. Will the decision benefit any stakeholder to the detriment of another stakeholder?
4. If there is detriment to any stakeholder, how should this be remedied, if at all?
5. What is the relationship between stockholders and other stakeholders?

Today, more and more firms are directly addressing the issue of ethics by establishing corporate ethics policies and requiring employee compliance with them. Frequently, employees are required to sign a formal pledge to uphold the firm’s ethics policies. Such policies typically apply to employee actions in dealing with all corporate stakeholders, including the public. Many companies also require employees to participate in ethics seminars and training programs. To provide further insight into the ethical dilemmas and issues sometimes facing the

financial manager, a number of the *In Practice* boxes appearing throughout this book are labeled to note their focus on ethics.

Ethics and Share Price

An effective ethics program is believed to enhance corporate value. An ethics program can produce a number of positive benefits. It can reduce potential litigation and judgment costs; maintain a positive corporate image; build shareholder confidence; and gain the loyalty, commitment, and respect of the firm's stakeholders. Such actions, by maintaining and enhancing cash flow and reducing perceived risk, can positively affect the firm's share price. *Ethical behavior is therefore viewed as necessary for achieving the firm's goal of owner wealth maximization.*⁵

The Agency Issue

We have seen that the goal of the financial manager should be to maximize the wealth of the firm's owners. Thus managers can be viewed as *agents* of the owners who have hired them and given them decision-making authority to manage the firm. Technically, any manager who owns less than 100 percent of the firm is to some degree an agent of the other owners. This separation of owners and managers is shown by the dashed horizontal line in Figure 1.1 on page 7.

In theory, most financial managers would agree with the goal of owner wealth maximization. In practice, however, managers are also concerned with their personal wealth, job security, and fringe benefits. Such concerns may make managers reluctant or unwilling to take more than moderate risk if they perceive that taking too much risk might jeopardize their jobs or reduce their personal wealth. The result is a less-than-maximum return and a potential loss of wealth for the owners.

Hint A stockbroker confronts the same issue. If she gets you to buy and sell more stock, it's good for *her*, but it may *not* be good for you.

The Agency Problem

From this conflict of owner and personal goals arises what has been called the **agency problem**, the likelihood that managers may place personal goals ahead of corporate goals.⁶ Two factors—market forces and *agency costs*—serve to prevent or minimize agency problems.

Market Forces One market force is *major shareholders*, particularly large institutional investors such as mutual funds, life insurance companies, and pension funds. These holders of large blocks of a firm's stock exert pressure on management to perform. When necessary, they exercise their voting rights as stockholders to replace underperforming management.

agency problem
The likelihood that managers may place personal goals ahead of corporate goals.

5. For an excellent discussion of this and related issues by a number of finance academics and practitioners who have given a lot of thought to financial ethics, see James S. Ang, "On Financial Ethics," *Financial Management* (Autumn 1993), pp. 32–59.

6. The agency problem and related issues were first addressed by Michael C. Jensen and William H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics* 3 (October 1976), pp. 305–306. For an excellent discussion of Jensen and Meckling and subsequent research on the agency problem, see William L. Megginson, *Corporate Finance Theory* (Boston, MA: Addison Wesley, 1997), Chapter 2.

agency costs

The costs borne by stockholders to minimize agency problems.

incentive plans

Management compensation plans that tend to tie management compensation to share price; most popular incentive plan involves the grant of *stock options*.

stock options

An incentive allowing managers to purchase stock at the market price set at the time of the grant.

performance plans

Plans that tie management compensation to measures such as EPS, growth in EPS, and other ratios of return. *Performance shares* and/or *cash bonuses* are used as compensation under these plans.

performance shares

Shares of stock given to management for meeting stated performance goals.

cash bonuses

Cash paid to management for achieving certain performance goals.

Another market force is the *threat of takeover* by another firm that believes it can enhance the target firm's value to restructuring its management, operations, and financing.⁷ The constant threat of a takeover tends to motivate management to act in the best interests of the firm's owners.

Agency Costs To minimize agency problems and contribute to the maximization of owners' wealth, stockholders incur **agency costs**. These are the costs of monitoring management behavior, ensuring against dishonest acts of management, and giving managers the financial incentive to maximize share price.

The most popular, powerful, and expensive approach is to *structure management compensation* to correspond with share price maximization. The objective is to give managers incentives to act in the best interests of the owners. In addition, the resulting compensation packages allow firms to compete for and hire the best managers available. The two key types of compensation plans are incentive plans and performance plans.

Incentive plans tend to tie management compensation to share price. The most popular incentive plan is the granting of **stock options** to management. These options allow managers to purchase stock at the market price set at the time of the grant. If the market price rises, managers will be rewarded by being able to resell the shares at the higher market price.

Many firms also offer **performance plans**, which tie management compensation to measures such as earnings per share (EPS), growth in EPS, and other ratios of return. **Performance shares**, shares of stock given to management as a result of meeting the stated performance goals, are often used in these plans. Another form of performance-based compensation is **cash bonuses**, cash payments tied to the achievement of certain performance goals.

The Current View of Management Compensation

The execution of many compensation plans has been closely scrutinized in recent years. Both individuals and institutional stockholders, as well as the Securities and Exchange Commission (SEC), have publicly questioned the appropriateness of the multimillion-dollar compensation packages that many corporate executives receive. For example, the three highest-paid CEOs in 2001 were (1) Lawrence Ellison, of Oracle, who earned \$706.1 million; (2) Jozef Straus, of JDS Uniphase, who earned \$150.8 million; and (3) Howard Solomon, of Forest Laboratories, who earned \$148.5 million. Tenth on the same list was Timothy Koogle, of Yahoo!, who earned \$64.6 million. During 2001, the compensation of the average CEO of a major U.S. corporation declined by about 16 percent from 2000. CEOs of 365 of the largest U.S. companies surveyed by *Business Week*, using data from Standard & Poor's EXECUCOMP, earned an average of \$11 million in total compensation; the average for the 20 highest paid CEOs was \$112.5 million.

Recent studies have failed to find a strong relationship between CEO compensation and share price. Publicity surrounding these large compensation packages (without corresponding share price performance) is expected to drive down

7. Detailed discussion of the important aspects of corporate takeovers is included in Chapter 17, "Mergers, LBOs, Divestitures, and Business Failure."

executive compensation in the future. Contributing to this publicity is the SEC requirement that publicly traded companies disclose to shareholders and others both the amount of compensation to their highest paid executives and the method used to determine it. At the same time, new compensation plans that better link managers' performance with regard to shareholder wealth to their compensation are expected to be developed and implemented.

Unconstrained, managers may have other goals in addition to share price maximization, but much of the evidence suggests that share price maximization—the focus of this book—is the primary goal of most firms.

Review Questions

- 1–11 For what three basic reasons is profit maximization inconsistent with wealth maximization?
- 1–12 What is *risk*? Why must risk as well as return be considered by the financial manager who is evaluating a decision alternative or action?
- 1–13 What is the goal of the firm and therefore of all managers and employees? Discuss how one measures achievement of this goal.
- 1–14 What is *economic value added (EVA®)*? How is it used?
- 1–15 Describe the role of corporate ethics policies and guidelines, and discuss the relationship that is believed to exist between ethics and share price.
- 1–16 How do market forces, both shareholder activism and the threat of takeover, act to prevent or minimize the *agency problem*?
- 1–17 Define *agency costs*, and explain why firms incur them. How can management *structure management compensation* to minimize agency problems? What is the current view with regard to the execution of many compensation plans?



1.4 Financial Institutions and Markets

Most successful firms have ongoing needs for funds. They can obtain funds from external sources in three ways. One is through a *financial institution* that accepts savings and transfers them to those that need funds. Another is through *financial markets*, organized forums in which the suppliers and demanders of various types of funds can make transactions. A third is through *private placement*. Because of the unstructured nature of private placements, here we focus primarily on financial institutions and financial markets.

financial institution

An intermediary that channels the savings of individuals, businesses, and governments into loans or investments.

Hint Think about how inefficient it would be if each individual saver had to negotiate with each potential user of savings. Institutions make the process very efficient by becoming intermediaries between savers and users.

Financial Institutions

Financial institutions serve as intermediaries by channeling the savings of individuals, businesses, and governments into loans or investments. Many financial institutions directly or indirectly pay savers interest on deposited funds; others provide services for a fee (for example, checking accounts for which customers pay service charges). Some financial institutions accept customers' savings deposits and lend this money to other customers or to firms; others invest

customers' savings in earning assets such as real estate or stocks and bonds; and some do both. Financial institutions are required by the government to operate within established regulatory guidelines.

Key Customers of Financial Institutions

The key suppliers of funds to financial institutions and the key demanders of funds from financial institutions are individuals, businesses, and governments. The savings that individual consumers place in financial institutions provide these institutions with a large portion of their funds. Individuals not only supply funds to financial institutions but also demand funds from them in the form of loans. However, individuals as a group are the *net suppliers* for financial institutions: They save more money than they borrow.

Business firms also deposit some of their funds in financial institutions, primarily in checking accounts with various commercial banks. Like individuals, firms also borrow funds from these institutions, but firms are *net demanders* of funds. They borrow more money than they save.

Governments maintain deposits of temporarily idle funds, certain tax payments, and Social Security payments in commercial banks. They do not borrow funds *directly* from financial institutions, although by selling their debt securities to various institutions, governments indirectly borrow from them. The government, like business firms, is typically a *net demander* of funds. It typically borrows more than it saves. We've all heard about the federal budget deficit.

Major Financial Institutions

The major financial institutions in the U.S. economy are commercial banks, savings and loans, credit unions, savings banks, insurance companies, pension funds, and mutual funds. These institutions attract funds from individuals, businesses, and governments, combine them, and make loans available to individuals and businesses. Descriptions of the major financial institutions are found at the textbook's Web site at www.aw.com/gitman.



financial markets

Forums in which suppliers of funds and demanders of funds can transact business directly.

private placement

The sale of a new security issue, typically bonds or preferred stock, directly to an investor or group of investors.

public offering

The nonexclusive sale of either bonds or stocks to the general public.

Financial Markets

Financial markets are forums in which suppliers of funds and demanders of funds can transact business directly. Whereas the loans and investments of institutions are made without the direct knowledge of the suppliers of funds (savers), suppliers in the financial markets know where their funds are being lent or invested. The two key financial markets are the money market and the capital market. Transactions in short-term debt instruments, or marketable securities, take place in the *money market*. Long-term securities—bonds and stocks—are traded in the *capital market*.

To raise money, firms can use either private placements or public offerings. **Private placement** involves the sale of a new security issue, typically bonds or preferred stock, directly to an investor or group of investors, such as an insurance company or pension fund. Most firms, however, raise money through a **public offering** of securities, which is the nonexclusive sale of either bonds or stocks to the general public.

primary market

Financial market in which securities are initially issued; the only market in which the issuer is directly involved in the transaction.

secondary market

Financial market in which preowned securities (those that are not new issues) are traded.

All securities are initially issued in the **primary market**. This is the only market in which the corporate or government issuer is directly involved in the transaction and receives direct benefit from the issue. That is, the company actually receives the proceeds from the sale of securities. Once the securities begin to trade between savers and investors, they become part of the **secondary market**. The primary market is the one in which “new” securities are sold. The secondary market can be viewed as a “preowned” securities market.

The Relationship Between Institutions and Markets

Financial institutions actively participate in the financial markets as both suppliers and demanders of funds. Figure 1.4 depicts the general flow of funds through and between financial institutions and financial markets; private placement transactions are also shown. The individuals, businesses, and governments that supply and demand funds may be domestic or foreign. We next briefly discuss the money market, including its international equivalent—the *Eurocurrency market*. We then end this section with a discussion of the capital market, which is of key importance to the firm.

The Money Market

money market

A financial relationship created between suppliers and demanders of *short-term funds*.

marketable securities

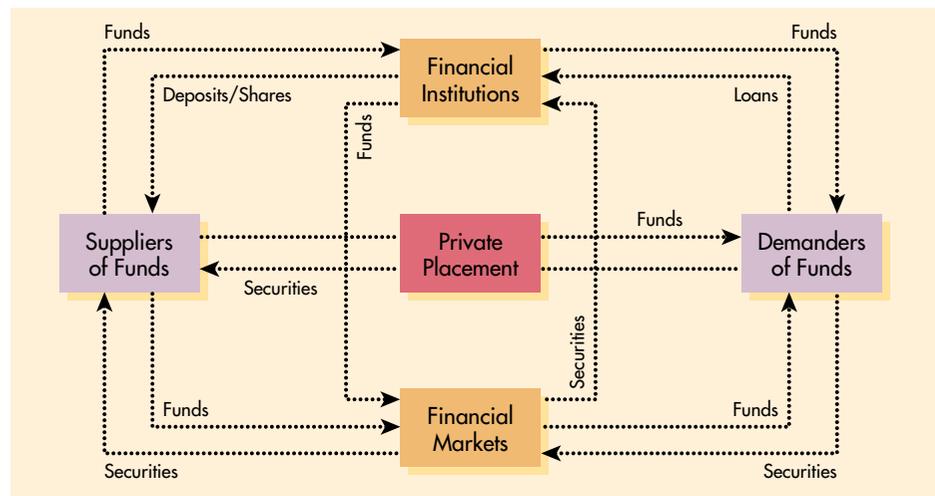
Short-term debt instruments, such as U.S. Treasury bills, commercial paper, and negotiable certificates of deposit issued by government, business, and financial institutions, respectively.

The **money market** is created by a financial relationship between suppliers and demanders of *short-term funds* (funds with maturities of one year or less). The money market exists because some individuals, businesses, governments, and financial institutions have temporarily idle funds that they wish to put to some interest-earning use. At the same time, other individuals, businesses, governments, and financial institutions find themselves in need of seasonal or temporary financing. The money market brings together these suppliers and demanders of short-term funds.

Most money market transactions are made in **marketable securities**—short-term debt instruments, such as U.S. Treasury bills, commercial paper, and

FIGURE 1.4**Flow of Funds**

Flow of funds for financial institutions and markets



negotiable certificates of deposit issued by government, business, and financial institutions, respectively. (Marketable securities are described in Chapter 14.)

The Operation of the Money Market

The money market is not an actual organization housed in some central location. How, then, are suppliers and demanders of short-term funds brought together? Typically, they are matched through the facilities of large New York banks and through government securities dealers. A number of stock brokerage firms purchase money market instruments for resale to customers. Also, financial institutions purchase money market instruments for their portfolios in order to provide attractive returns on their customers' deposits and share purchases. Additionally, the Federal Reserve banks become involved in loans from one commercial bank to another; these loans are referred to as transactions in **federal funds**.

In the money market, businesses and governments demand short-term funds (borrow) by *issuing* a money market instrument. Parties who supply short-term funds (invest) *purchase* the money market instruments. To issue or purchase a money market instrument, one party must go directly to another party or use an intermediary, such as a bank or brokerage firm, to make the transaction. The secondary (resale) market for marketable securities is no different from the primary (initial issue) market with respect to the basic transactions that are made. Individuals also participate in the money market as purchasers and sellers of money market instruments. Although individuals do not issue marketable securities, they may sell them in the money market to liquidate them prior to maturity.

federal funds

Loan transactions between commercial banks in which the Federal Reserve banks become involved.

Hint Remember that the *money market* is for short-term fund raising and is represented by current liabilities on the balance sheet. The *capital market* is for long-term fund raising and is reflected by long-term debt and equity on the balance sheet.

The Eurocurrency Market

The international equivalent of the domestic money market is called the **Eurocurrency market**. This is a market for short-term bank deposits denominated in U.S. dollars or other easily convertible currencies. Historically, the Eurocurrency market has been centered in London, but it has evolved into a truly global market.

Eurocurrency deposits arise when a corporation or individual makes a bank deposit in a currency other than the local currency of the country where the bank is located. If, for example, a multinational corporation were to deposit U.S. dollars in a London bank, this would create a Eurodollar deposit (a dollar deposit at a bank in Europe). Nearly all Eurodollar deposits are *time deposits*. This means that the bank would promise to repay the deposit, with interest, at a fixed date in the future—say, in 6 months. During the interim, the bank is free to lend this dollar deposit to creditworthy corporate or government borrowers. If the bank cannot find a borrower on its own, it may lend the deposit to another international bank. The rate charged on these “interbank loans” is called the **London Interbank Offered Rate (LIBOR)**, and this is the base rate that is used to price all Eurocurrency loans.

The Eurocurrency market has grown rapidly, primarily because it is an unregulated, wholesale, and global market that fills the needs of both borrowers and lenders. Investors with excess cash to lend are able to make large, short-term, and safe deposits at attractive interest rates. Likewise, borrowers are able to arrange large loans, quickly and confidentially, also at attractive interest rates.

Eurocurrency market

International equivalent of the domestic money market.

London Interbank Offered Rate (LIBOR)

The base rate that is used to price all Eurocurrency loans.

The Capital Market

capital market

A market that enables suppliers and demanders of *long-term funds* to make transactions.

The **capital market** is a market that enables suppliers and demanders of *long-term funds* to make transactions. Included are securities issues of business and government. The backbone of the capital market is formed by the various *securities exchanges* that provide a forum for bond and stock transactions.

bond

Long-term debt instrument used by business and government to raise large sums of money, generally from a diverse group of lenders.

Key Securities Traded: Bonds and Stocks

The key capital market securities are bonds (long-term debt) and both common and preferred stock (equity, or ownership). **Bonds** are long-term debt instruments used by business and government to raise large sums of money, generally from a diverse group of lenders. *Corporate bonds* typically pay interest *semiannually* (every 6 months) at a stated *coupon interest rate*. They have an initial *maturity* of from 10 to 30 years, and a *par*, or *face*, *value* of \$1,000 that must be repaid at maturity. Bonds are described in detail in Chapter 6.

EXAMPLE ▼

Lakeview Industries, a major microprocessor manufacturer, has issued a 9 percent coupon interest rate, 20-year bond with a \$1,000 par value that pays interest semiannually. Investors who buy this bond receive the contractual right to \$90 annual interest (9% coupon interest rate \times \$1,000 par value) distributed as \$45 at the end of each 6 months ($1/2 \times \$90$) for 20 years, plus the \$1,000 par value at the end of year 20.

preferred stock

A special form of ownership having a fixed periodic dividend that must be paid prior to payment of any common stock dividends.

As noted earlier, shares of *common stock* are units of ownership, or equity, in a corporation. Common stockholders earn a return by receiving dividends—periodic distributions of earnings—or by realizing increases in share price. **Preferred stock** is a special form of ownership that has features of both a bond and common stock. Preferred stockholders are promised a fixed periodic dividend that must be paid prior to payment of any dividends to common stockholders. In other words, preferred stock has “preference” over common stock. Preferred and common stock are described in detail in Chapter 7.

securities exchanges

Organizations that provide the marketplace in which firms can raise funds through the sale of new securities and purchasers can resell securities.

Major Securities Exchanges

Securities exchanges provide the marketplace in which firms can raise funds through the sale of new securities and purchasers of securities can easily resell them when necessary. Many people call securities exchanges “stock markets,” but this label is misleading because bonds, common stock, preferred stock, and a variety of other investment vehicles are all traded on these exchanges. The two key types of securities exchanges are the organized exchange and the over-the-counter exchange. In addition, important markets exist outside the United States.

organized securities exchanges

Tangible organizations that act as *secondary markets* where outstanding securities are resold.

Organized Securities Exchanges Organized securities exchanges are tangible organizations that act as *secondary markets* where outstanding securities are resold. Organized exchanges account for about 46 percent of the *total dollar volume* of domestic shares traded. The best-known organized exchanges are the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX),

both headquartered in New York City. There are also regional exchanges, such as the Chicago Stock Exchange and the Pacific Stock Exchange.

Most exchanges are modeled after the New York Stock Exchange, which accounts for about 93 percent of the total annual dollar volume of shares traded on *organized* U.S. exchanges. In order for a firm's securities to be listed for trading on an organized exchange, a firm must file an application for listing and meet a number of requirements. For example, to be eligible for listing on the NYSE, a firm must have at least 2,000 stockholders owning 100 or more shares; a minimum of 1.1 million shares of publicly held stock; pretax earnings of at least \$6.5 million over the previous 3 years, with no loss in the previous 2 years; and a minimum of \$100 million in stockholders' equity. Clearly, only large, widely held firms are candidates for NYSE listing.

To make transactions on the "floor" of the New York Stock Exchange, an individual or firm must own a "seat" on the exchange. There are a total of 1,366 seats on the NYSE, most of which are owned by brokerage firms. Trading is carried out on the floor of the exchange through an *auction process*. The goal of trading is to fill *buy orders* at the lowest price and to fill *sell orders* at the highest price, thereby giving both purchasers and sellers the best possible deal.

Once placed, an order to buy or sell can be executed in minutes, thanks to sophisticated telecommunication devices. New Internet-based brokerage systems enable investors to place their buy and sell orders electronically. Information on publicly traded securities is reported in various media, both print, such as the *Wall Street Journal*, and electronic, such as MSN Money Central Investor (*www.moneycentral.msn.com*).

over-the-counter (OTC) exchange
An intangible market for the purchase and sale of securities not listed by the organized exchanges.

The Over-the-Counter Exchange The **over-the-counter (OTC) exchange** is an intangible market for the purchase and sale of securities not listed by the organized exchanges. OTC traders, known as *dealers*, are linked with the purchasers and sellers of securities through the *National Association of Securities Dealers Automated Quotation (Nasdaq) system*.

This sophisticated telecommunications network provides current bid and ask prices on thousands of actively traded OTC securities. The *bid price* is the highest price offered by a dealer to purchase a given security, and the *ask price* is the lowest price at which the dealer is willing to sell the security. The dealer in effect adds securities to his or her inventory by purchasing them at the bid price and sells securities from the inventory at the ask price. The dealer expects to profit from the *spread* between the bid and ask prices. Unlike the auction process on the organized securities exchanges, the prices at which securities are traded in the OTC market result from both competitive bids and negotiation.

Unlike the organized exchanges, the OTC handles *both* outstanding securities and new public issues, making it both a *secondary* and a *primary market*. The OTC accounts for about 54 percent of the *total dollar volume* of domestic shares traded.

Eurobond market
The market in which corporations and governments typically issue bonds denominated in dollars and sell them to investors located outside the United States.

International Capital Markets Although U.S. capital markets are by far the world's largest, there are important debt and equity markets outside the United States. In the **Eurobond market**, corporations and governments typically issue bonds denominated in dollars and sell them to investors located outside the United States. A U.S. corporation might, for example, issue dollar-denominated

bonds that would be purchased by investors in Belgium, Germany, or Switzerland. Through the Eurobond market, issuing firms and governments can tap a much larger pool of investors than would be generally available in the local market.

The foreign bond market is another international market for long-term debt securities. A **foreign bond** is a bond issued by a foreign corporation or government that is denominated in the investor's home currency and sold in the investor's home market. A bond issued by a U.S. company that is denominated in Swiss francs and sold in Switzerland is an example of a foreign bond. Although the foreign bond market is much smaller than the Eurobond market, many issuers have found this to be an attractive way of tapping debt markets in Germany, Japan, Switzerland, and the United States.

Finally, the **international equity market** allows corporations to sell blocks of shares to investors in a number of different countries simultaneously. This market enables corporations to raise far larger amounts of capital than they could raise in any single national market. International equity sales have also proven to be indispensable to governments that have sold state-owned companies to private investors during recent years.

foreign bond

Bond that is issued by a foreign corporation or government and is denominated in the investor's home currency and sold in the investor's home market.

international equity market

A market that allows corporations to sell blocks of shares to investors in a number of different countries simultaneously.

efficient market

A market that allocates funds to their most productive uses as a result of competition among wealth-maximizing investors that determines and publicizes prices that are believed to be close to their true value.

The Role of Securities Exchanges

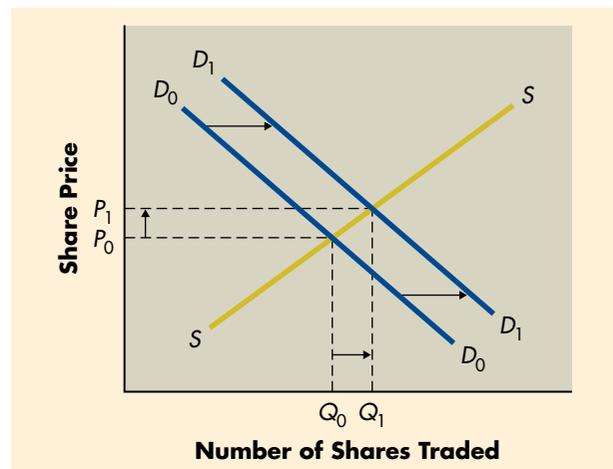
Securities exchanges create continuous liquid markets in which firms can obtain needed financing. They also create **efficient markets** that allocate funds to their most productive uses. This is especially true for securities that are actively traded on major exchanges, where the competition among wealth-maximizing investors determines and publicizes prices that are believed to be close to their true value.

The price of an individual security is determined by the demand for and supply of the security. Figure 1.5 depicts the interaction of the forces of demand (represented by line D_0) and supply (represented by line S) for a given security currently selling at an equilibrium price P_0 . At that price, Q_0 shares of the stock are traded.

Changing evaluations of a firm's prospects cause changes in the demand for and supply of its securities and ultimately result in a new price for the securities.

FIGURE 1.5

Supply and Demand
Supply and demand for a security



Suppose, for example, that the firm shown in Figure 1.5 announces a favorable discovery. Investors expect rewarding results from the discovery, so they increase their valuations of the firm's shares. The changing evaluation results in a shift in demand from D_0 to D_1 . At that new level of demand, Q_1 shares will be traded, and a new, higher equilibrium price of P_1 will result. The competitive market created by the major securities exchanges provides a forum in which share price is continuously adjusted to changing demand and supply.

Review Questions

- 1-18 Who are the key participants in the transactions of financial institutions? Who are net suppliers and who are net demanders?
- 1-19 What role do *financial markets* play in our economy? What are *primary* and *secondary* markets? What relationship exists between financial institutions and financial markets?
- 1-20 What is the *money market*? How does it work?
- 1-21 What is the *Eurocurrency market*? What is the *London Interbank Offered Rate (LIBOR)* and how is it used in this market?
- 1-22 What is the *capital market*? What are the primary securities traded in it?
- 1-23 What role do securities exchanges play in the capital market? How does the *over-the-counter exchange* operate? How does it differ from the *organized securities exchanges*?
- 1-24 Briefly describe the international capital markets, particularly the *Eurobond market* and the *international equity market*.
- 1-25 What are *efficient markets*? What determines the price of an individual security in such a market?



1.5 Business Taxes

Taxes are a fact of life, and businesses, like individuals, must pay taxes on income. The income of sole proprietorships and partnerships is taxed as the income of the individual owners; corporate income is subject to corporate taxes. Regardless of their legal form, all businesses can earn two types of income: ordinary and capital gains. Under current law, these two types of income are treated differently in the taxation of individuals; they are not treated differently for entities subject to corporate taxes. Frequent amendments in the tax code, such as the *Economic Growth and Tax Relief Reconciliation Act of 2001* (reflected in the following discussions), make it likely that these rates will change before the next edition of this text is published. Emphasis here is given to *corporate taxation*.

Ordinary Income

The **ordinary income** of a corporation is income earned through the sale of goods or services. Ordinary income is currently taxed subject to the rates depicted in the corporate tax rate schedule in Table 1.4.

ordinary income
Income earned through the sale
of a firm's goods or services.

TABLE 1.4 Corporate Tax Rate Schedule

Range of taxable income	Tax calculation	
	Base tax	+ (Marginal rate × amount over base bracket)
\$ 0 to \$ 50,000	\$ 0	+ (15% × amount over \$ 0)
50,000 to 75,000	7,500	+ (25 × amount over 50,000)
75,000 to 100,000	13,750	+ (34 × amount over 75,000)
100,000 to 335,000 ^a	22,250	+ (39 × amount over 100,000)
335,000 to 10,000,000	113,900	+ (34 × amount over 335,000)
Over \$10,000,000	3,400,000	+ (35 × amount over 10,000,000)

^aBecause corporations with taxable income in excess of \$100,000 must increase their tax by the lesser of \$11,750 or 5% of the taxable income in excess of \$100,000, they will end up paying a 39% tax on taxable income between \$100,000 and \$335,000. The 5% surtax that raises the tax rate from 34% to 39% causes all corporations with taxable income between \$335,000 and \$10,000,000 to have an *average tax rate* of 34%.

EXAMPLE

Webster Manufacturing, Inc., a small manufacturer of kitchen knives, has before-tax earnings of \$250,000. The tax on these earnings can be found by using the tax rate schedule in Table 1.4:

$$\begin{aligned} \text{Total taxes due} &= \$22,250 + [0.39 \times (\$250,000 - \$100,000)] \\ &= \$22,250 + (0.39 \times \$150,000) \\ &= \$22,250 + \$58,500 = \underline{\underline{\$80,750}} \end{aligned}$$

From a financial point of view, it is important to understand the difference between average and marginal tax rates, the treatment of interest and dividend income, and the effects of tax deductibility.

Average Versus Marginal Tax Rates

average tax rate
A firm's taxes divided by its taxable income.

The **average tax rate** paid on the firm's ordinary income can be calculated by dividing its taxes by its taxable income. For firms with taxable income of \$10,000,000 or less, the average tax rate ranges from 15 to 34 percent, reaching 34 percent when taxable income equals or exceeds \$335,000. For firms with taxable income in excess of \$10,000,000, the average tax rate ranges between 34 and 35 percent. The average tax rate paid by Webster Manufacturing, Inc., in the preceding example was 32.3 percent ($\$80,750 \div \$250,000$). As a corporation's taxable income increases, its average tax rate approaches and finally reaches 34 percent. It remains at that level up to \$10,000,000 of taxable income, beyond which it rises toward but never reaches 35 percent.

marginal tax rate
The rate at which *additional income* is taxed.

The **marginal tax rate** represents the rate at which *additional income* is taxed. In the current corporate tax structure, the marginal tax rate on income up to \$50,000 is 15 percent; from \$50,000 to \$75,000 it is 25 percent; and so on, as shown in Table 1.4. Webster Manufacturing's marginal tax rate is currently 39 percent because its next dollar of taxable income (bringing its before-tax earnings to \$250,001) would be taxed at that rate. To simplify calculations in the text, a *fixed 40 percent tax rate is assumed to be applicable to ordinary corporate income*. Given our focus on financial decision making, this rate is assumed to represent the firm's *marginal tax rate*.

double taxation

Occurs when the already once-taxed earnings of a corporation are distributed as cash dividends to stockholders, who must pay taxes on them.

intercorporate dividends

Dividends received by one corporation on common and preferred stock held in other corporations.

Interest and Dividend Income

In the process of determining taxable income, any *interest received* by the corporation is included as ordinary income. Dividends, on the other hand, are treated differently. This different treatment moderates the effect of **double taxation**, which occurs when the already once-taxed earnings of a corporation are distributed as cash dividends to stockholders, who must pay taxes on them. Therefore, dividends that the firm receives on common and preferred stock held in other corporations, and representing less than 20 percent ownership in them, are subject to a 70 percent exclusion for tax purposes.⁸

Because of the dividend exclusion, only 30 percent of these **intercorporate dividends** are included as ordinary income. The tax law provides this exclusion to avoid *triple taxation*. Triple taxation would occur if the first and second corporations were taxed on income before the second corporation paid dividends to its shareholders, who must then include the dividends in their taxable incomes. The dividend exclusion in effect eliminates most of the potential tax liability from the dividends received by the second and any subsequent corporations.

EXAMPLE ▼

Charnes Industries, a large foundry that makes custom castings for the automobile industry, during the year just ended received \$100,000 in interest on bonds it held and \$100,000 in dividends on common stock it owned in other corporations. The firm is subject to a 40% marginal tax rate and is eligible for a 70% exclusion on its intercorporate dividend receipts. The after-tax income realized by Charnes from each of these sources of investment income is found as follows:

	Interest income	Dividend income
(1) Before-tax amount	\$100,000	\$100,000
Less: Applicable exclusion	0	$(0.70 \times \$100,000) = 70,000$
Taxable amount	\$100,000	\$ 30,000
(2) Tax (40%)	40,000	12,000
After-tax amount [(1) - (2)]	<u>\$ 60,000</u>	<u>\$ 88,000</u>

As a result of the 70% dividend exclusion, the after-tax amount is greater for the dividend income than for the interest income. Clearly, the dividend exclusion enhances the attractiveness of stock investments relative to bond investments made by one corporation in another. ▲

Tax-Deductible Expenses

In calculating their taxes, corporations are allowed to deduct operating expenses, as well as interest expense. The tax deductibility of these expenses reduces their after-tax cost. The following example illustrates the benefit of tax deductibility.

8. The exclusion is 80% if the corporation owns between 20 and 80% of the stock in the corporation paying it dividends; 100% of the dividends received are excluded if it owns more than 80% of the corporation paying it dividends. For convenience, we are assuming here that the ownership interest in the dividend-paying corporation is less than 20%.

EXAMPLE Two companies, Debt Co. and No Debt Co., both expect in the coming year to have earnings before interest and taxes of \$200,000. Debt Co. during the year will have to pay \$30,000 in interest. No Debt Co. has no debt and therefore will have no interest expense. Calculation of the earnings after taxes for these two firms is as follows:

	Debt Co.	No Debt Co.
Earnings before interest and taxes	\$200,000	\$200,000
Less: Interest expense	<u>30,000</u>	<u>0</u>
Earnings before taxes	\$170,000	\$200,000
Less: Taxes (40%)	<u>68,000</u>	<u>80,000</u>
Earnings after taxes	<u>\$102,000</u>	<u>\$120,000</u>
Difference in earnings after taxes	\$18,000	

Whereas Debt Co. had \$30,000 more interest expense than No Debt Co., Debt Co.'s earnings after taxes are only \$18,000 less than those of No Debt Co. (\$102,000 for Debt Co. versus \$120,000 for No Debt Co.). This difference is attributable to the fact that Debt Co.'s \$30,000 interest expense deduction provided a tax savings of \$12,000 (\$68,000 for Debt Co. versus \$80,000 for No Debt Co.). This amount can be calculated directly by multiplying the tax rate by the amount of interest expense ($0.40 \times \$30,000 = \$12,000$). Similarly, the \$18,000 *after-tax cost* of the interest expense can be calculated directly by multiplying one minus the tax rate by the amount of interest expense [$(1 - 0.40) \times \$30,000 = \$18,000$].

The tax deductibility of certain expenses reduces their actual (after-tax) cost to the profitable firm. Note that both for accounting and tax purposes *interest is a tax-deductible expense, whereas dividends are not*. Because dividends are not tax deductible, their after-tax cost is equal to the amount of the dividend. Thus a \$30,000 cash dividend has an after-tax cost of \$30,000.

Capital Gains

If a firm sells a capital asset (such as stock held as an investment) for more than its initial purchase price, the difference between the sale price and the purchase price is called a **capital gain**. For corporations, capital gains are added to ordinary corporate income and taxed at the regular corporate rates, with a maximum marginal tax rate of 39 percent.⁹ To simplify the computations presented in the text, as for ordinary income, a *fixed 40 percent tax rate is assumed to be applicable to corporate capital gains*.

capital gain

The amount by which the sale price of an asset exceeds the asset's initial purchase price.

9. The *Omnibus Budget Reconciliation Act of 1993* included a provision that allows the capital gains tax to be halved on gains resulting from investments made after January 1, 1993, in startup firms with a value of less than \$50 million that have been held for at least 5 years. This special provision, which is intended to help startup firms, is ignored throughout this text.

EXAMPLE ▼ Ross Company, a manufacturer of pharmaceuticals, has pretax operating earnings of \$500,000 and has just sold for \$40,000 an asset that was purchased 2 years ago for \$36,000. Because the asset was sold for more than its initial purchase price, there is a capital gain of \$4,000 (\$40,000 sale price – \$36,000 initial purchase price). The corporation's taxable income will total \$504,000 (\$500,000 ordinary income plus \$4,000 capital gain). Because this total is above \$335,000, the capital gain will be taxed at the 34% rate (see Table 1.4), resulting in a tax of \$1,360 ($0.34 \times \$4,000$).

tax loss carryback/carryforward
A tax benefit that allows corporations experiencing operating losses to carry tax losses back up to 2 years and forward for as many as 20 years.



Tax Loss Carrybacks and Carryforwards

Corporations that are experiencing operating losses may obtain tax relief by using a **tax loss carryback/carryforward**. The tax laws allow corporations to carry tax losses *back up to 2 years* and *forward for as many as 20 years*. This feature is especially attractive for firms in cyclic businesses such as durable goods manufacturing and construction. It effectively allows them to average out their taxes over the good and bad years. The law requires the net amount of losses to first be carried back, applying them to the earliest year allowable, and progressively moving forward until the loss has been fully recovered or the carryforward period has passed. Because tax losses can be carried back and applied to previous pretax earnings as soon as they are realized, the firm can apply for an immediate tax refund on its carrybacks. A carryforward, if any, can be used to reduce future income, thereby reducing future tax payments. See the book's Web site at www.aw.com/gitman for an example of how tax loss carrybacks/carryforwards work.

Review Questions

- 1-26 Describe the tax treatment of *ordinary income* and that of *capital gains*. What is the difference between the *average tax rate* and the *marginal tax rate*?
- 1-27 Why might the *intercorporate dividend* exclusion make corporate stock investments by one corporation in another more attractive than bond investments?
- 1-28 What benefit results from the tax deductibility of certain corporate expenses?
- 1-29 How is the *tax loss carryback/carryforward* used when a firm experiences an operating loss in a given year?

1.6 Using This Text

The organization of this textbook links the firm's activities to its value, as determined in the securities markets. The activities of the financial manager are described in the six parts of the book. Each major decision area is presented in terms of both return and risk factors and their potential impact on owners' wealth. Coverage of international events and topics is integrated into the chapter discussions, and a separate chapter on international managerial finance is also included.

The text has been developed around a group of learning goals—six per chapter. Mastery of these goals results in a broad understanding of managerial finance. These goals have been carefully integrated into a learning system. Each

chapter begins with a numbered list of learning goals. Next to each major text heading is a “toolbox,” which notes by number the specific learning goal(s) addressed in that section. At the end of each section of the chapter (positioned before the next major heading) are review questions that test your understanding of the material in that section. At the end of each chapter, the chapter summaries, self-test problems, and problems are also keyed by number to each chapter’s learning goals. By linking all elements to the learning goals, the integrated learning system facilitates your mastery of the goals.

Also keyed to various parts of the text is the *PMF CD-ROM Software*, a disk for use with IBM PCs and compatible microcomputers. The disk contains three different sets of routines:

1. The *PMF Tutor* is a user-friendly program that extends self-testing opportunities in the more quantitative chapters beyond those included in the end-of-chapter materials. It gives immediate feedback with detailed solutions and provides tutorial assistance (including text references). Text discussions and end-of-chapter problems with which the *PMF Tutor* can be used are marked with a .
2. The *PMF Problem-Solver* can be used as an aid in performing many of the routine financial calculations presented in the book. A disk symbol, , identifies those text discussions and end-of-chapter problems that can be solved with the *PMF Problem-Solver*.
3. The *PMF Excel Spreadsheet Templates* can be used with Microsoft Excel to input data and carry out “what-if” types of analyses in selected chapters. These problems are marked by the symbol .

A detailed discussion of how to use the *PMF CD-ROM Software*—the *Tutor*, the *Problem-Solver*, and the *Excel Spreadsheet Templates*—is included in Appendix D at the back of this book.

Each chapter ends with a case that integrates the chapter materials, and each part ends with an integrative case that ties together the key topical material covered in the chapters within that part. Where applicable, the symbols for the *PMF Problem-Solver* and/or the *PMF Tutor* identify case questions that can be solved with the aid of these programs. Both the chapter-end and the part-end cases can be used to synthesize and apply related concepts and techniques.

SUMMARY

FOCUS ON VALUE

Chapter 1 established the primary goal of the firm—to **maximize the wealth of the owners for whom the firm is being operated**. For public companies, which are the focus of this text, value at any time is reflected in the stock price. Therefore, management should act only on those alternatives or opportunities that are expected to create value for owners by increasing the stock price. Doing this requires management to consider the returns (magnitude and timing of cash flows) and the risk of each proposed action and their combined impact on value.

REVIEW OF LEARNING GOALS

LG1 Define *finance*, the major areas of finance and the career opportunities available in this field and the legal forms of business organization. Finance, the art and science of managing money, affects the lives of every person and every organization. Major opportunities in financial services exist within banking and related institutions, personal financial planning, investments, real estate, and insurance. Managerial finance is concerned with the duties of the financial manager in the business firm. It offers numerous career opportunities, as shown in Table 1.3. The recent trend toward globalization of business activity has created new demands and opportunities in managerial finance.

The legal forms of business organization are the sole proprietorship, the partnership, and the corporation. The corporation is dominant in terms of business receipts and profits, and its owners are its common and preferred stockholders. Stockholders expect to earn a return by receiving dividends or by realizing gains through increases in share price. The key strengths and weaknesses of the common legal forms of business organization are summarized in Table 1.1. Other limited liability organizations are listed and described in Table 1.2.

LG2 Describe the managerial finance function and its relationship to economics and accounting. All areas of responsibility within a firm interact with finance personnel and procedures. In large firms, the managerial finance function might be handled by a separate department headed by the vice president of finance (CFO), to whom the treasurer and controller report. The financial manager must understand the economic environment and relies heavily on the economic principle of marginal analysis to make financial decisions. Financial managers use accounting but concentrate on cash flows and decision making.

LG3 Identify the primary activities of the financial manager within the firm. The primary activities of the financial manager, in addition to ongoing involvement in financial analysis and planning, are making investment decisions and making financing decisions.

LG4 Explain why wealth maximization, rather than profit maximization, is the firm's goal and how

the agency issue is related to it. The goal of the financial manager is to maximize the owners' wealth, as evidenced by stock price. Profit maximization ignores the timing of returns, does not directly consider cash flows, and ignores risk, so it is an inappropriate goal. Both return and risk must be assessed by the financial manager who is evaluating decision alternatives. The wealth-maximizing actions of financial managers should also reflect the interests of stakeholders, groups who have a direct economic link to the firm. Positive ethical practices help the firm and its managers to achieve the firm's goal of owner wealth maximization.

An agency problem results when managers, as agents for owners, place personal goals ahead of corporate goals. Market forces, in the form of shareholder activism and the threat of takeover, tend to prevent or minimize agency problems. Firms incur agency costs to monitor managers' actions and provide incentives for them to act in the best interests of owners. Stock options and performance plans are examples of such agency costs.

LG5 Understand the relationship between financial institutions and markets, and the role and operations of the money and capital markets. Financial institutions serve as intermediaries by channeling into loans or investments the savings of individuals, businesses, and governments. The financial markets are forums in which suppliers and demanders of funds can transact business directly. Financial institutions actively participate in the financial markets as both suppliers and demanders of funds.

In the money market, marketable securities (short-term debt instruments) are traded, typically through large New York banks and government securities dealers. The Eurocurrency market is the international equivalent of the domestic money market.

In the capital market, transactions in long-term debt (bonds) and equity (common and preferred stock) are made. The organized securities exchanges provide secondary markets for securities. The over-the-counter exchange, a telecommunications network, offers a secondary market for securities and is a primary market in which new public issues are sold. Important debt and equity markets—the Eurobond market and the international equity mar-

ket—exist outside of the United States. The securities exchanges create continuous liquid markets for needed financing and allocate funds to their most productive uses.

LG6 Discuss the fundamentals of business taxation of ordinary income and capital gains, and explain the treatment of tax losses. Corporate income is subject to corporate taxes. Corporate tax rates

are applicable to both ordinary income (after deduction of allowable expenses) and capital gains. The average tax rate paid by a corporation ranges from 15 to nearly 35 percent. (For convenience, we assume a 40 percent marginal tax rate in this book.) Corporate taxpayers can reduce their taxes through certain provisions in the tax code: intercorporate dividend exclusions, tax-deductible expenses, and tax loss carrybacks and carryforwards.

SELF-TEST PROBLEMS (Solutions in Appendix B)

- LG6** ST 1–1 **Corporate taxes** Montgomery Enterprises, Inc., had operating earnings of \$280,000 for the year just ended. During the year the firm sold stock that it held in another company for \$180,000, which was \$30,000 above its original purchase price of \$150,000, paid 1 year earlier.
- What is the amount, if any, of capital gains realized during the year?
 - How much total taxable income did the firm earn during the year?
 - Use the corporate tax rate schedule given in Table 1.4 to calculate the firm's total taxes due.
 - Calculate both the *average tax rate* and the *marginal tax rate* on the basis of your findings.

PROBLEMS

- LG1** 1–1 **Liability comparisons** Merideth Harper has invested \$25,000 in Southwest Development Company. The firm has recently declared bankruptcy and has \$60,000 in unpaid debts. Explain the nature of payments, if any, by Ms. Harper in each of the following situations.
- Southwest Development Company is a sole proprietorship owned by Ms. Harper.
 - Southwest Development Company is a 50–50 partnership of Ms. Harper and Christopher Black.
 - Southwest Development Company is a corporation.
- LG2** **LG4** 1–2 **Marginal analysis and the goal of the firm** Ken Allen, capital budgeting analyst for Bally Gears, Inc., has been asked to evaluate a proposal. The manager of the automotive division believes that replacing the robotics used on the heavy truck gear line will produce total benefits of \$560,000 (in today's dollars) over the next 5 years. The existing robotics would produce benefits of \$400,000 (also in today's dollars) over that same time period. An initial cash investment of \$220,000 would be required to install the new equipment. The manager estimates that the existing robotics can be sold for \$70,000. Show how Ken will apply marginal analysis techniques to determine the following:
- The marginal (added) benefits of the proposed new robotics.
 - The marginal (added) cost of the proposed new robotics.
 - The net benefit of the proposed new robotics.
 - What should Ken Allen recommend that the company do? Why?
 - What factors besides the costs and benefits should be considered before the final decision is made?

- LG2** 1–3 **Accrual income versus cash flow for a period** Thomas Book Sales, Inc., supplies textbooks to college and university bookstores. The books are shipped with a proviso that they must be paid for within 30 days but can be returned for a full refund credit within 90 days. In 2003, Thomas shipped and billed book titles totaling \$760,000. Collections, net of return credits, during the year totaled \$690,000. The company spent \$300,000 acquiring the books that it shipped.
- Using accrual accounting and the preceding values, show the firm's net profit for the past year.
 - Using cash accounting and the preceding values, show the firm's net cash flow for the past year.
 - Which of these statements is more useful to the financial manager? Why?
- LG4** 1–4 **Identifying agency problems, costs, and resolutions** Explain why each of the following situations is an agency problem and what costs to the firm might result from it. Suggest how the problem might be dealt with short of firing the individual(s) involved.
- The front desk receptionist routinely takes an extra 20 minutes of lunch to run personal errands.
 - Division managers are padding cost estimates in order to show short-term efficiency gains when the costs come in lower than the estimates.
 - The firm's chief executive officer has secret talks with a competitor about the possibility of a merger in which (s)he would become the CEO of the combined firms.
 - A branch manager lays off experienced full-time employees and staffs customer service positions with part-time or temporary workers to lower employment costs and raise this year's branch profit. The manager's bonus is based on profitability.
- LG6** 1–5 **Corporate taxes** Tantor Supply, Inc., is a small corporation acting as the exclusive distributor of a major line of sporting goods. During 2003 the firm earned \$92,500 before taxes.
- Calculate the firm's tax liability using the corporate tax rate schedule given in Table 1.4.
 - How much are Tantor Supply's 2003 after-tax earnings?
 - What was the firm's *average tax rate*, based on your findings in part a?
 - What is the firm's *marginal tax rate*, based on your findings in part a?
- LG6** 1–6 **Average corporate tax rates** Using the corporate tax rate schedule given in Table 1.4, perform the following:
- Calculate the tax liability, after-tax earnings, and average tax rates for the following levels of corporate earnings before taxes: \$10,000; \$80,000; \$300,000; \$500,000; \$1.5 million; \$10 million; and \$15 million.
 - Plot the average tax rates (measured on the y axis) against the pretax income levels (measured on the x axis). What generalization can be made concerning the relationship between these variables?
- LG6** 1–7 **Marginal corporate tax rates** Using the corporate tax rate schedule given in Table 1.4, perform the following:
- Find the marginal tax rate for the following levels of corporate earnings before taxes: \$15,000; \$60,000; \$90,000; \$200,000; \$400,000; \$1 million; and \$20 million.

- b. Plot the marginal tax rates (measured on the y axis) against the pretax income levels (measured on the x axis). Explain the relationship between these variables.



LG6

- 1–8 Interest versus dividend income** During the year just ended, Shering Distributors, Inc., had pretax earnings from operations of \$490,000. In addition, during the year it received \$20,000 in income from interest on bonds it held in Zig Manufacturing and received \$20,000 in income from dividends on its 5% common stock holding in Tank Industries, Inc. Shering is in the 40% tax bracket and is eligible for a 70% dividend exclusion on its Tank Industries stock.
- Calculate the firm's tax on its operating earnings only.
 - Find the tax and the after-tax amount attributable to the interest income from Zig Manufacturing bonds.
 - Find the tax and the after-tax amount attributable to the dividend income from the Tank Industries, Inc., common stock.
 - Compare, contrast, and discuss the after-tax amounts resulting from the interest income and dividend income calculated in parts **b** and **c**.
 - What is the firm's total tax liability for the year?



LG6

- 1–9 Interest versus dividend expense** Michaels Corporation expects earnings before interest and taxes to be \$40,000 for this period. Assuming an ordinary tax rate of 40%, compute the firm's earnings after taxes and earnings available for common stockholders (earnings after taxes and preferred stock dividends, if any) under the following conditions:
- The firm pays \$10,000 in interest.
 - The firm pays \$10,000 in preferred stock dividends.

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- 1–10 Capital gains taxes** Perkins Manufacturing is considering the sale of two nondepreciable assets, X and Y. Asset X was purchased for \$2,000 and will be sold today for \$2,250. Asset Y was purchased for \$30,000 and will be sold today for \$35,000. The firm is subject to a 40% tax rate on capital gains.
- Calculate the amount of capital gain, if any, realized on each of the assets.
 - Calculate the tax on the sale of each asset.

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- 1–11 Capital gains taxes** The following table contains purchase and sale prices for the nondepreciable capital assets of a major corporation. The firm paid taxes of 40% on capital gains.

Asset	Purchase price	Sale price
A	\$ 3,000	\$ 3,400
B	12,000	12,000
C	62,000	80,000
D	41,000	45,000
E	16,500	18,000

- Determine the amount of capital gain realized on each of the five assets.
- Calculate the amount of tax paid on each of the assets.

CHAPTER 1 CASE Assessing the Goal of Sports Products, Inc.

Loren Seguara and Dale Johnson both work for Sports Products, Inc., a major producer of boating equipment and accessories. Loren works as a clerical assistant in the Accounting Department, and Dale works as a packager in the Shipping Department. During their lunch break one day, they began talking about the company. Dale complained that he had always worked hard trying not to waste packing materials and efficiently and cost-effectively performing his job. In spite of his efforts and those of his co-workers in the department, the firm's stock price had declined nearly \$2 per share over the past 9 months. Loren indicated that she shared Dale's frustration, particularly because the firm's profits had been rising. Neither could understand why the firm's stock price was falling as profits rose.

Loren indicated that she had seen documents describing the firm's profit-sharing plan under which all managers were partially compensated on the basis of the firm's profits. She suggested that maybe it was profit that was important to management, because it directly affected their pay. Dale said, "That doesn't make sense, because the stockholders own the firm. Shouldn't management do what's best for stockholders? Something's wrong!" Loren responded, "Well, maybe that explains why the company hasn't concerned itself with the stock price. Look, the only profits that stockholders receive are in the form of cash dividends, and this firm has never paid dividends during its 20-year history. We as stockholders therefore don't directly benefit from profits. The only way we benefit is for the stock price to rise." Dale chimed in, "That probably explains why the firm is being sued by state and federal environmental officials for dumping pollutants in the adjacent stream. Why spend money for pollution control? It increases costs, lowers profits, and therefore lowers management's earnings!"

Loren and Dale realized that the lunch break had ended and they must quickly return to work. Before leaving, they decided to meet the next day to continue their discussion.

Required

- What should the management of Sports Products, Inc., pursue as its overriding goal? Why?
- Does the firm appear to have an *agency problem*? Explain.
- Evaluate the firm's approach to pollution control. Does it seem to be *ethical*? Why might incurring the expense to control pollution be in the best interests of the firm's owners in spite of its negative impact on profits?
- On the basis of the information provided, what specific recommendations would you offer the firm?

WEB EXERCISE



At the Careers in Finance Web site, www.careers-in-finance.com, you will find information on career opportunities in seven different areas of finance. First click on **Corporate Finance** in the **Areas to Explore** section and use the various subsections to answer the following questions:

- What are the primary responsibilities of the financial manager?
- Summarize the types of skills a financial manager needs.

3. Describe the key job areas in corporate finance.
4. What are the salary ranges for the following positions in corporate finance: rookie financial analyst, credit manager, chief financial officer? How do these compare to salaries at General Motors or PepsiCo?

Now return to the home page and click on either **Commercial Banking** or **Investment Banking**.

5. How do careers in the area you chose (commercial banking or investment banking) compare to careers in corporate finance in terms of skills required, responsibilities, and salaries?

Remember to check the book's Web site at

www.aw.com/gitman

for additional resources, including additional Web exercises.