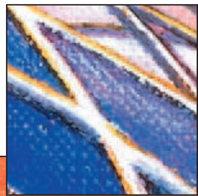
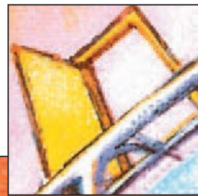
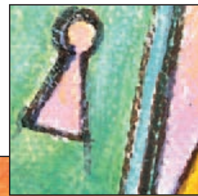




CHAPTER

1

Introduction to Corporate Finance

Apple Computer began as a two-man partnership in a garage. It grew rapidly and, by 1985, became a large publicly traded corporation with 60 million shares of stock and a total market value in excess of $1 billion. At that time, the firm's more visible cofounder, 30-year-old Steven Jobs, owned 7 million shares of Apple stock worth about $120 million.

Despite his stake in the company and his role in its founding and success, Jobs was forced to relinquish operating responsibilities in 1985 when Apple's financial performance turned sour, and he subsequently resigned altogether.

Of course, you can't keep a good entrepreneur down. Jobs formed Pixar Animation Studios, the company that is responsible for the animation in the hit movies *Toy Story, A Bug's Life,* and *Toy Story 2.* Pixar went public in 1995, and, following an enthusiastic reception by the stock market, Jobs's 80 percent stake was valued at about $1.1 billion. Finally, just to show that what goes around comes around, in 1997, Apple's future was still in doubt, and the company, struggling for relevance in a "Wintel" world, decided to go the sequel route when it hired a new interim chief executive officer (CEO): Steven Jobs! How successful was he at his new (old) job? In January 2000, Apple's board of directors granted Jobs stock options worth $200 million and threw in $90 million for the purchase and care of a Gulfstream V jet. Board member Edgar Woolard stated, "This guy has saved the company."

Understanding Jobs's journey from garage-based entrepreneur to corporate executive to ex-employee and, finally, to CEO takes us into issues involving the corporate form of organization, corporate goals, and corporate control, all of which we discuss in this chapter.

To begin our study of modern corporate finance and financial management, we need to address two central issues. First, what is corporate finance and what is the role of the financial manager in the corporation? Second, what is the goal of financial management? To describe the financial management environment, we

Check out the companion web site for this text at www.mhhe.com/rwj.

consider the corporate form of organization and discuss some conflicts that can arise within the corporation. We also take a brief look at financial markets in the United States.

1.1 CORPORATE FINANCE AND THE FINANCIAL MANAGER

In this section, we discuss where the financial manager fits in the corporation. We start by defining corporate finance and the financial manager's job.

What Is Corporate Finance?

Imagine that you were to start your own business. No matter what type you started, you would have to answer the following three questions in some form or another:

For job descriptions in finance and other areas, visit www.careers-in-business.com.

1. What long-term investments should you take on? That is, what lines of business will you be in and what sorts of buildings, machinery, and equipment will you need?
2. Where will you get the long-term financing to pay for your investment? Will you bring in other owners or will you borrow the money?
3. How will you manage your everyday financial activities such as collecting from customers and paying suppliers?

These are not the only questions by any means, but they are among the most important. Corporate finance, broadly speaking, is the study of ways to answer these three questions. Accordingly, we'll be looking at each of them in the chapters ahead.

The Financial Manager

For current issues facing CFOs, see www.cfo.com.

A striking feature of large corporations is that the owners (the stockholders) are usually not directly involved in making business decisions, particularly on a day-to-day basis. Instead, the corporation employs managers to represent the owners' interests and make decisions on their behalf. In a large corporation, the financial manager would be in charge of answering the three questions we raised in the preceding section.

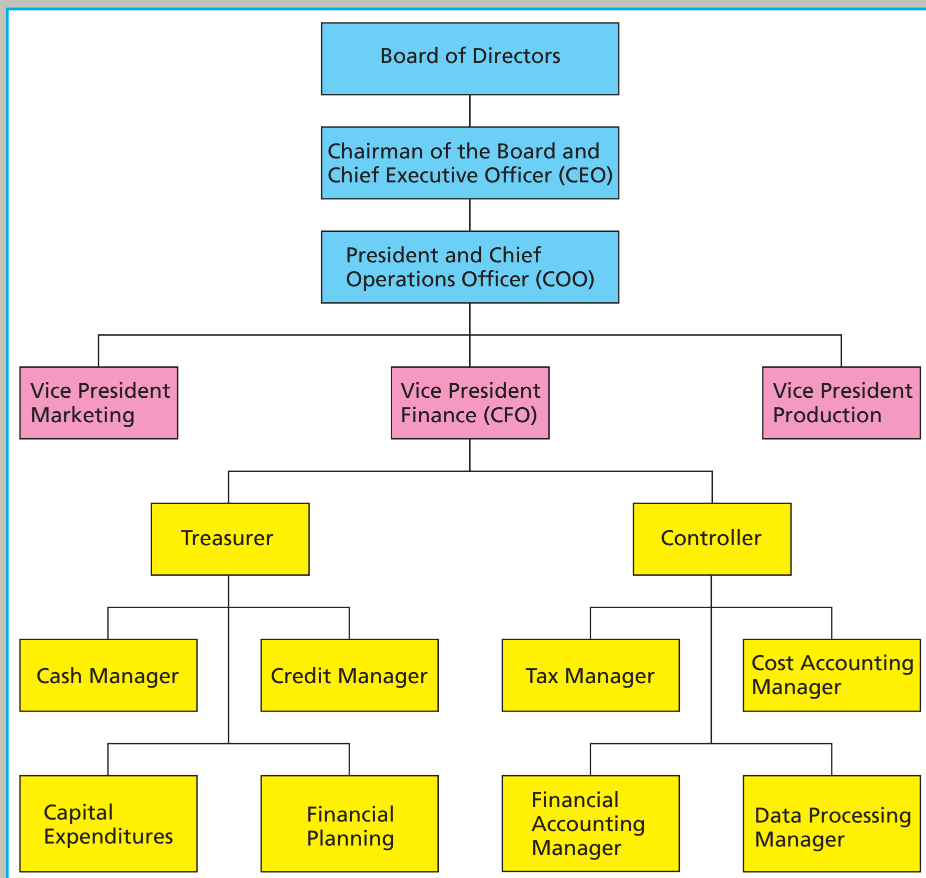
The financial management function is usually associated with a top officer of the firm, such as a vice president of finance or some other chief financial officer (CFO). Figure 1.1 is a simplified organizational chart that highlights the finance activity in a large firm. As shown, the vice president of finance coordinates the activities of the treasurer and the controller. The controller's office handles cost and financial accounting, tax payments, and management information systems. The treasurer's office is responsible for managing the firm's cash and credit, its financial planning, and its capital expenditures. These treasury activities are all related to the three general questions raised earlier, and the chapters ahead deal primarily with these issues. Our study thus bears mostly on activities usually associated with the treasurer's office.

Financial Management Decisions

As the preceding discussion suggests, the financial manager must be concerned with three basic types of questions. We consider these in greater detail next.

FIGURE 1.1

A Simplified Organizational Chart.
The exact titles and organization differ from company to company.



Capital Budgeting The first question concerns the firm's long-term investments. The process of planning and managing a firm's long-term investments is called **capital budgeting**. In capital budgeting, the financial manager tries to identify investment opportunities that are worth more to the firm than they cost to acquire. Loosely speaking, this means that the value of the cash flow generated by an asset exceeds the cost of that asset.

capital budgeting
The process of planning and managing a firm's long-term investments.

The types of investment opportunities that would typically be considered depend in part on the nature of the firm's business. For example, for a large retailer such as Wal-Mart, deciding whether or not to open another store would be an important capital budgeting decision. Similarly, for a software company such as Oracle or Microsoft, the decision to develop and market a new spreadsheet would be a major capital budgeting decision. Some decisions, such as what type of computer system to purchase, might not depend so much on a particular line of business.

Regardless of the specific nature of an opportunity under consideration, financial managers must be concerned not only with how much cash they expect to receive, but also with when they expect to receive it and how likely they are to receive it. Evaluating the *size, timing,* and *risk* of future cash flows is the essence of capital budgeting. In fact, as we will see in the chapters ahead, whenever we evaluate a business decision, the size, timing, and risk of the cash flows will be, by far, the most important things we will consider.

Capital Structure The second question for the financial manager concerns ways in which the firm obtains and manages the long-term financing it needs to support its long-term investments. A firm's **capital structure** (or financial structure) is the specific mixture of long-term debt and equity the firm uses to finance its operations. The financial manager has two concerns in this area. First, how much should the firm borrow? That is, what mixture of debt and equity is best? The mixture chosen will affect both the risk and the value of the firm. Second, what are the least expensive sources of funds for the firm?

capital structure
The mixture of debt and equity maintained by a firm.

If we picture the firm as a pie, then the firm's capital structure determines how that pie is sliced—in other words, what percentage of the firm's cash flow goes to creditors and what percentage goes to shareholders. Firms have a great deal of flexibility in choosing a financial structure. The question of whether one structure is better than any other for a particular firm is the heart of the capital structure issue.

In addition to deciding on the financing mix, the financial manager has to decide exactly how and where to raise the money. The expenses associated with raising long-term financing can be considerable, so different possibilities must be carefully evaluated. Also, corporations borrow money from a variety of lenders in a number of different, and sometimes exotic, ways. Choosing among lenders and among loan types is another job handled by the financial manager.

Working Capital Management The third question concerns **working capital** management. The term *working capital* refers to a firm's short-term assets, such as inventory, and its short-term liabilities, such as money owed to suppliers. Managing the firm's working capital is a day-to-day activity that ensures that the firm has sufficient resources to continue its operations and avoid costly interruptions. This involves a number of activities related to the firm's receipt and disbursement of cash.

working capital
A firm's short-term assets and liabilities.

Some questions about working capital that must be answered are the following: (1) How much cash and inventory should we keep on hand? (2) Should we sell on credit? If so, what terms will we offer, and to whom will we extend them? (3) How will we obtain any needed short-term financing? Will we purchase on credit or will we borrow in the short term and pay cash? If we borrow in the short term, how and where should we do it? These are just a small sample of the issues that arise in managing a firm's working capital.

Conclusion The three areas of corporate financial management we have described—capital budgeting, capital structure, and working capital management—are very broad categories. Each includes a rich variety of topics, and we have indicated only a few of the questions that arise in the different areas. The chapters ahead contain greater detail.

CONCEPT QUESTIONS

1.1a What is the capital budgeting decision?
1.1b What do you call the specific mixture of long-term debt and equity that a firm chooses to use?
1.1c Into what category of financial management does cash management fall?

FORMS OF BUSINESS ORGANIZATION

1.2

Large firms in the United States, such as Ford and General Electric, are almost all organized as corporations. We examine the three different legal forms of business organization—sole proprietorship, partnership, and corporation—to see why this is so. Each of the three forms has distinct advantages and disadvantages in terms of the life of the business, the ability of the business to raise cash, and taxes. A key observation is that, as a firm grows, the advantages of the corporate form may come to outweigh the disadvantages.

Sole Proprietorship

A **sole proprietorship** is a business owned by one person. This is the simplest type of business to start and is the least regulated form of organization. Depending on where you live, you might be able to start up a proprietorship by doing little more than getting a business license and opening your doors. For this reason, there are more proprietorships than any other type of business, and many businesses that later become large corporations start out as small proprietorships.

sole proprietorship
A business owned by a single individual.

The owner of a sole proprietorship keeps all the profits. That's the good news. The bad news is that the owner has *unlimited liability* for business debts. This means that creditors can look beyond business assets to the proprietor's personal assets for payment. Similarly, there is no distinction between personal and business income, so all business income is taxed as personal income.

For more information on forms of business organization, see the "Small Business" section at www.nolo.com.

The life of a sole proprietorship is limited to the owner's life span, and, it is important to note, the amount of equity that can be raised is limited to the amount of the proprietor's personal wealth. This limitation often means that the business is unable to exploit new opportunities because of insufficient capital. Ownership of a sole proprietorship may be difficult to transfer because this transfer requires the sale of the entire business to a new owner.

Partnership

A **partnership** is similar to a proprietorship, except that there are two or more owners (partners). In a *general partnership,* all the partners share in gains or losses, and all have unlimited liability for *all* partnership debts, not just some particular share. The way partnership gains (and losses) are divided is described in the *partnership agreement.* This agreement can be an informal oral agreement, such as "let's start a lawn mowing business," or a lengthy, formal written document.

partnership
A business formed by two or more individuals or entities.

In a *limited partnership,* one or more *general partners* will run the business and have unlimited liability, but there will be one or more *limited partners* who will not actively participate in the business. A limited partner's liability for business debts is limited to the amount that partner contributes to the partnership. This form of organization is common in real estate ventures, for example.

The advantages and disadvantages of a partnership are basically the same as those of a proprietorship. Partnerships based on a relatively informal agreement are easy and inexpensive to form. General partners have unlimited liability for partnership debts, and the partnership terminates when a general partner wishes to sell out or dies. All income is taxed as personal income to the partners, and the amount of equity that can be raised is limited to the partners' combined wealth. Ownership of a general partnership is not easily transferred, because a transfer requires that a new partnership be formed. A limited partner's interest can be sold without dissolving the partnership, but finding a buyer may be difficult.

Because a partner in a general partnership can be held responsible for all partnership debts, having a written agreement is very important. Failure to spell out the rights and duties of the partners frequently leads to misunderstandings later on. Also, if you are a limited partner, you must not become deeply involved in business decisions unless you are willing to assume the obligations of a general partner. The reason is that if things go badly, you may be deemed to be a general partner even though you say you are a limited partner.

Based on our discussion, the primary disadvantages of sole proprietorships and partnerships as forms of business organization are (1) unlimited liability for business debts on the part of the owners, (2) limited life of the business, and (3) difficulty of transferring ownership. These three disadvantages add up to a single, central problem: the ability of such businesses to grow can be seriously limited by an inability to raise cash for investment.

Corporation

corporation
A business created as a distinct legal entity composed of one or more individuals or entities.

The **corporation** is the most important form (in terms of size) of business organization in the United States. A corporation is a legal "person" separate and distinct from its owners, and it has many of the rights, duties, and privileges of an actual person. Corporations can borrow money and own property, can sue and be sued, and can enter into contracts. A corporation can even be a general partner or a limited partner in a partnership, and a corporation can own stock in another corporation.

Not surprisingly, starting a corporation is somewhat more complicated than starting the other forms of business organization. Forming a corporation involves preparing *articles of incorporation* (or a charter) and a set of *bylaws.* The articles of incorporation must contain a number of things, including the corporation's name, its intended life (which can be forever), its business purpose, and the number of shares that can be issued. This information must normally be supplied to the state in which the firm will be incorporated. For most legal purposes, the corporation is a "resident" of that state.

The bylaws are rules describing how the corporation regulates its own existence. For example, the bylaws describe how directors are elected. These bylaws may be a very simple statement of a few rules and procedures, or they may be quite extensive for a large corporation. The bylaws may be amended or extended from time to time by the stockholders.

In a large corporation, the stockholders and the managers are usually separate groups. The stockholders elect the board of directors, who then select the managers. Management is charged with running the corporation's affairs in the stockholders' interests. In principle, stockholders control the corporation because they elect the directors.

As a result of the separation of ownership and management, the corporate form has several advantages. Ownership (represented by shares of stock) can be readily transferred, and the life of the corporation is therefore not limited. The corporation borrows money in its own name. As a result, the stockholders in a corporation have limited liability for corporate debts. The most they can lose is what they have invested.

The relative ease of transferring ownership, the limited liability for business debts, and the unlimited life of the business are the reasons why the corporate form is superior when it comes to raising cash. If a corporation needs new equity, for example, it can sell new shares of stock and attract new investors. Apple Computer, which we discussed to open the chapter, is a case in point. Apple was a pioneer in the personal computer business. As demand for its products exploded, Apple had to convert to the corporate form of organization to raise the capital needed to fund growth and new product development. The number of owners can be huge; larger corporations have many thousands or even millions of stockholders. For example, AT&T has about 4.8 million stockholders and about 3.8 billion shares outstanding. In such cases, ownership can change continuously without affecting the continuity of the business.

The corporate form has a significant disadvantage. Because a corporation is a legal person, it must pay taxes. Moreover, money paid out to stockholders in the form of dividends is taxed again as income to those stockholders. This is *double taxation,* meaning that corporate profits are taxed twice: at the corporate level when they are earned and again at the personal level when they are paid out.[1]

As of 2001, all 50 states had enacted laws allowing for the creation of a relatively new form of business organization, the limited liability company (LLC). The goal of this entity is to operate and be taxed like a partnership but retain limited liability for owners, so an LLC is essentially a hybrid of partnership and corporation. Although states have differing definitions for LLCs, the more important scorekeeper is the Internal Revenue Service (IRS). The IRS will consider an LLC a corporation, thereby subjecting it to double taxation, unless it meets certain specific criteria. In essence, an LLC cannot be too corporationlike, or it will be treated as one by the IRS. LLCs have become common. For example, Goldman, Sachs and Co., one of Wall Street's last remaining partnerships, decided to convert from a private partnership to an LLC (it later "went public," becoming a publicly held corporation). Large accounting firms and law firms by the score have converted to LLCs.

How hard is it to form an LLC? Visit www.llc.com to find out.

As the discussion in this section illustrates, the need of large businesses for outside investors and creditors is such that the corporate form will generally be the best for such firms. We focus on corporations in the chapters ahead because of the importance of the corporate form in the U.S. economy and world economies. Also, a few important financial management issues, such as dividend policy, are unique to corporations. However, businesses of all types and sizes need financial management, so the majority of the subjects we discuss bear on any form of business.

A Corporation by Another Name . . .

The corporate form of organization has many variations around the world. The exact laws and regulations differ from country to country, of course, but the essential features of public ownership and limited liability remain. These firms are often called *joint stock companies, public limited companies,* or *limited liability companies,* depending on the specific nature of the firm and the country of origin.

Table 1.1 gives the names of a few well-known international corporations, their country of origin, and a translation of the abbreviation that follows the company name.

[1]An S corporation is a special type of small corporation that is essentially taxed like a partnership and thus avoids double taxation. In mid-1996, the maximum number of shareholders in an S corporation was raised from 35 to 75.

TABLE 1.1
International Corporations

		Type of Company	
Company	**Country of Origin**	**In Original Language**	**Translated**
Bayerische Moterenwerke (BMW) AG	Germany	Aktiengesellschaft	Corporation
Dornier GmBH	Germany	Gesellschaft mit Beschraenkter Haftung	Limited liability company
Rolls-Royce PLC	United Kingdom	Public limited company	Public limited company
Shell UK Ltd.	United Kingdom	Limited	Corporation
Unilever NV	Netherlands	Naamloze Vennootschap	Joint stock company
Fiat SpA	Italy	Societa per Azioni	Joint stock company
Volvo AB	Sweden	Aktiebolag	Joint stock company
Peugeot SA	France	Société Anonyme	Joint stock company

CONCEPT QUESTIONS

1.2a What are the three forms of business organization?
1.2b What are the primary advantages and disadvantages of sole proprietorships and partnerships?
1.2c What is the difference between a general and a limited partnership?
1.2d Why is the corporate form superior when it comes to raising cash?

1.3 THE GOAL OF FINANCIAL MANAGEMENT

Assuming that we restrict ourselves to for-profit businesses, the goal of financial management is to make money or add value for the owners. This goal is a little vague, of course, so we examine some different ways of formulating it in order to come up with a more precise definition. Such a definition is important because it leads to an objective basis for making and evaluating financial decisions.

Possible Goals

If we were to consider possible financial goals, we might come up with some ideas like the following:

Survive.
Avoid financial distress and bankruptcy.
Beat the competition.
Maximize sales or market share.
Minimize costs.
Maximize profits.
Maintain steady earnings growth.

These are only a few of the goals we could list. Furthermore, each of these possibilities presents problems as a goal for the financial manager.

For example, it's easy to increase market share or unit sales; all we have to do is lower our prices or relax our credit terms. Similarly, we can always cut costs simply by doing away with things such as research and development. We can avoid bankruptcy by never borrowing any money or never taking any risks, and so on. It's not clear that any of these actions are in the stockholders' best interests.

Profit maximization would probably be the most commonly cited goal, but even this is not a very precise objective. Do we mean profits this year? If so, then we should note that actions such as deferring maintenance, letting inventories run down, and taking other short-run cost-cutting measures will tend to increase profits now, but these activities aren't necessarily desirable.

The goal of maximizing profits may refer to some sort of "long-run" or "average" profits, but it's still unclear exactly what this means. First, do we mean something like accounting net income or earnings per share? As we will see in more detail in the next chapter, these accounting numbers may have little to do with what is good or bad for the firm. Second, what do we mean by the long run? As a famous economist once remarked, in the long run, we're all dead! More to the point, this goal doesn't tell us what the appropriate trade-off is between current and future profits.

The goals we've listed here are all different, but they do tend to fall into two classes. The first of these relates to profitability. The goals involving sales, market share, and cost control all relate, at least potentially, to different ways of earning or increasing profits. The goals in the second group, involving bankruptcy avoidance, stability, and safety, relate in some way to controlling risk. Unfortunately, these two types of goals are somewhat contradictory. The pursuit of profit normally involves some element of risk, so it isn't really possible to maximize both safety and profit. What we need, therefore, is a goal that encompasses both factors.

The Goal of Financial Management

The financial manager in a corporation makes decisions for the stockholders of the firm. Given this, instead of listing possible goals for the financial manager, we really need to answer a more fundamental question: From the stockholders' point of view, what is a good financial management decision?

If we assume that stockholders buy stock because they seek to gain financially, then the answer is obvious: good decisions increase the value of the stock, and poor decisions decrease the value of the stock.

Given our observations, it follows that the financial manager acts in the shareholders' best interests by making decisions that increase the value of the stock. The appropriate goal for the financial manager can thus be stated quite easily:

> **The goal of financial management is to maximize the current value per share of the existing stock.**

The goal of maximizing the value of the stock avoids the problems associated with the different goals we listed earlier. There is no ambiguity in the criterion, and there is no short-run versus long-run issue. We explicitly mean that our goal is to maximize the *current* stock value.

If this goal seems a little strong or one-dimensional to you, keep in mind that the stockholders in a firm are residual owners. By this we mean that they are only entitled to what is left after employees, suppliers, and creditors (and anyone else with a legitimate claim) are paid their due. If any of these groups go unpaid, the stockholders get nothing. So, if the stockholders are winning in the sense that the leftover, residual, portion is growing, it must be true that everyone else is winning also.

Because the goal of financial management is to maximize the value of the stock, we need to learn how to identify those investments and financing arrangements that favorably impact the value of the stock. This is precisely what we will be studying. In fact, we could have defined corporate finance as the study of the relationship between business decisions and the value of the stock in the business.

A More General Goal

Given our goal as stated in the preceding section (maximize the value of the stock), an obvious question comes up: What is the appropriate goal when the firm has no traded stock? Corporations are certainly not the only type of business; and the stock in many corporations rarely changes hands, so it's difficult to say what the value per share is at any given time.

As long as we are dealing with for-profit businesses, only a slight modification is needed. The total value of the stock in a corporation is simply equal to the value of the owners' equity. Therefore, a more general way of stating our goal is as follows: maximize the market value of the existing owners' equity.

With this in mind, it doesn't matter whether the business is a proprietorship, a partnership, or a corporation. For each of these, good financial decisions increase the market value of the owners' equity and poor financial decisions decrease it. In fact, although we choose to focus on corporations in the chapters ahead, the principles we develop apply to all forms of business. Many of them even apply to the not-for-profit sector.

Finally, our goal does not imply that the financial manager should take illegal or unethical actions in the hope of increasing the value of the equity in the firm. What we mean is that the financial manager best serves the owners of the business by identifying goods and services that add value to the firm because they are desired and valued in the free marketplace.

CONCEPT QUESTIONS

1.3a What is the goal of financial management?
1.3b What are some shortcomings of the goal of profit maximization?
1.3c Can you give a definition of corporate finance?

1.4 THE AGENCY PROBLEM AND CONTROL OF THE CORPORATION

We've seen that the financial manager acts in the best interests of the stockholders by taking actions that increase the value of the stock. However, we've also seen that in large corporations ownership can be spread over a huge number of stockholders. This dispersion of ownership arguably means that management effectively controls the firm. In this case, will management necessarily act in the best interests of the stockholders? Put another way, might not management pursue its own goals at the stockholders'

In Their Own Words . . .

Clifford W. Smith Jr. on Market Incentives for Ethical Behavior

Ethics is a topic that has been receiving increased interest in the business community. Much of this discussion has been led by philosophers and has focused on moral principles. Rather than review these issues, I want to discuss a complementary (but often ignored) set of issues from an economist's viewpoint. Markets impose potentially substantial costs on individuals and institutions that engage in unethical behavior. These market forces thus provide important incentives that foster ethical behavior in the business community.

At its core, economics is the study of making choices. I thus want to examine ethical behavior simply as one choice facing an individual. Economic analysis suggests that in considering an action, you identify its expected costs and benefits. If the estimated benefits exceed the estimated costs, you take the action; if not, you don't. To focus this discussion, let's consider the following specific choice: Suppose you have a contract to deliver a product of a specified quality. Would you cheat by reducing quality to lower costs in an attempt to increase profits? Economics implies that the higher the expected costs of cheating, the more likely ethical actions will be chosen. This simple principle has several implications.

First, the higher the probability of detection, the less likely an individual is to cheat. This implication helps us understand numerous institutional arrangements for monitoring in the marketplace. For example, a company agrees to have its financial statements audited by an external public accounting firm. This periodic professional monitoring increases the probability of detection, thereby reducing any incentive to misstate the firm's financial condition.

Second, the higher the sanctions imposed if cheating is detected, the less likely an individual is to cheat. Hence, a business transaction that is expected to be repeated between the same parties faces a lower probability of cheating because the lost profits from the forgone stream of future sales provide powerful incentives for contract compliance. However, if continued corporate existence is more uncertain, so are the expected costs of forgone future sales. Therefore firms in financial difficulty are more likely to cheat than financially healthy firms. Firms thus have incentives to adopt financial policies that help credibly bond against cheating. For example, if product quality is difficult to assess prior to purchase, customers doubt a firm's claims about product quality. Where quality is more uncertain, customers are only willing to pay lower prices. Such firms thus have particularly strong incentives to adopt financial policies that imply a lower probability of insolvency.

Third, the expected costs are higher if information about cheating is rapidly and widely distributed to potential future customers. Thus information services like *Consumer Reports,* which monitor and report on product quality, help deter cheating. By lowering the costs for potential customers to monitor quality, such services raise the expected costs of cheating.

Finally, the costs imposed on a firm that is caught cheating depend on the market's assessment of the ethical breach. Some actions viewed as clear transgressions by some might be viewed as justifiable behavior by others. Ethical standards also vary across markets. For example, a payment that if disclosed in the United States would be labeled a bribe might be viewed as a standard business practice in a third-world market. The costs imposed will be higher the greater the consensus that the behavior was unethical.

Establishing and maintaining a reputation for ethical behavior is a valuable corporate asset in the business community. This analysis suggests that a firm concerned about the ethical conduct of its employees should pay careful attention to potential conflicts among the firm's management, employees, customers, creditors, and shareholders. Consider Sears, the department store giant that was found to be charging customers for auto repairs of questionable necessity. In an effort to make the company more service oriented (in the way that competitors like Nordstrom are), Sears had initiated an across-the-board policy of commission sales. But what works in clothing and housewares does not always work the same way in the auto repair shop. A customer for a man's suit might know as much as the salesperson about the product. But many auto repair customers know little about the inner workings of their cars and thus are more likely to rely on employee recommendations in deciding on purchases. Sears's compensation policy resulted in recommendations of unnecessary repairs to customers. Sears would not have had to deal with its repair shop problems and the consequent erosion of its reputation had it anticipated that its commission sales policy would encourage auto shop employees to cheat its customers.

Clifford W. Smith Jr. is the Epstein Professor of Finance at the University of Rochester's Simon School of Business Administration. He is an advisory editor of the *Journal of Financial Economics.* His research focuses on corporate financial policy and the structure of financial institutions.

expense? In the following pages, we briefly consider some of the arguments relating to this question.

Agency Relationships

The relationship between stockholders and management is called an *agency relationship.* Such a relationship exists whenever someone (the principal) hires another (the agent) to represent his/her interests. For example, you might hire someone (an agent) to sell a car that you own while you are away at school. In all such relationships, there is a possibility of conflict of interest between the principal and the agent. Such a conflict is called an **agency problem**.

agency problem
The possibility of conflict of interest between the stockholders and management of a firm.

Suppose that you hire someone to sell your car and that you agree to pay that person a flat fee when he/she sells the car. The agent's incentive in this case is to make the sale, not necessarily to get you the best price. If you offer a commission of, say, 10 percent of the sales price instead of a flat fee, then this problem might not exist. This example illustrates that the way in which an agent is compensated is one factor that affects agency problems.

Management Goals

To see how management and stockholder interests might differ, imagine that the firm is considering a new investment. The new investment is expected to favorably impact the share value, but it is also a relatively risky venture. The owners of the firm will wish to take the investment (because the stock value will rise), but management may not because there is the possibility that things will turn out badly and management jobs will be lost. If management does not take the investment, then the stockholders may lose a valuable opportunity. This is one example of an *agency cost.*

More generally, the term *agency costs* refers to the costs of the conflict of interest between stockholders and management. These costs can be indirect or direct. An indirect agency cost is a lost opportunity, such as the one we have just described.

Direct agency costs come in two forms. The first type is a corporate expenditure that benefits management but costs the stockholders. Perhaps the purchase of a luxurious and unneeded corporate jet would fall under this heading. The second type of direct agency cost is an expense that arises from the need to monitor management actions. Paying outside auditors to assess the accuracy of financial statement information could be one example.

It is sometimes argued that, left to themselves, managers would tend to maximize the amount of resources over which they have control or, more generally, corporate power or wealth. This goal could lead to an overemphasis on corporate size or growth. For example, cases in which management is accused of overpaying to buy up another company just to increase the size of the business or to demonstrate corporate power are not uncommon. Obviously, if overpayment does take place, such a purchase does not benefit the stockholders of the purchasing company.

Our discussion indicates that management may tend to overemphasize organizational survival to protect job security. Also, management may dislike outside interference, so independence and corporate self-sufficiency may be important goals.

Do Managers Act in the Stockholders' Interests?

Whether managers will, in fact, act in the best interests of stockholders depends on two factors. First, how closely are management goals aligned with stockholder goals? This question relates to the way managers are compensated. Second, can management be replaced if they do not pursue stockholder goals? This issue relates to control of the firm. As we will discuss, there are a number of reasons to think that, even in the largest firms, management has a significant incentive to act in the interests of stockholders.

Managerial Compensation Management will frequently have a significant economic incentive to increase share value for two reasons. First, managerial compensation, particularly at the top, is usually tied to financial performance in general and oftentimes to share value in particular. For example, managers are frequently given the option to buy stock at a bargain price. The more the stock is worth, the more valuable is this option. In fact, options are increasingly being used to motivate employees of all types, not just top management. For example, in 2001, Intel announced that it was issuing new stock options to 80,000 employees, thereby giving its workforce a significant stake in its stock price and better aligning employee and shareholder interests. Many other corporations, large and small, have adopted similar policies.

Business ethics are considered at www.business-ethics.com.

The second incentive managers have relates to job prospects. Better performers within the firm will tend to get promoted. More generally, those managers who are successful in pursuing stockholder goals will be in greater demand in the labor market and thus command higher salaries.

In fact, managers who are successful in pursuing stockholder goals can reap enormous rewards. For example, one of America's best-paid executives in 2001 was Sanford Weill of financial services giant Citigroup, who, according to *Forbes* magazine, made about $216 million. Weill's total compensation over the period 1996–2001 exceeded $750 million. Michael Eisner, head of Disney, earned a not-so-Mickey-Mouse $738 million for the same period. Information on executive compensation, along with a ton of other information, can be easily found on the Web for almost any public company. Our nearby *Work the Web* box shows you how to get started.

Control of the Firm Control of the firm ultimately rests with stockholders. They elect the board of directors, who, in turn, hire and fire management. The fact that stockholders control the corporation was made abundantly clear by Steven Jobs's experience at Apple, which we described to open the chapter. Even though he was a founder of the corporation and was largely responsible for its most successful products, there came a time when shareholders, through their elected directors, decided that Apple would be better off without him, so out he went.

An important mechanism by which unhappy stockholders can act to replace existing management is called a *proxy fight.* A proxy is the authority to vote someone else's stock. A proxy fight develops when a group solicits proxies in order to replace the existing board, and thereby replace existing management. For example, in 2001 forest products giant Weyerhaeuser Co. attempted to purchase rival Willamette Industries, but Willamette's management rejected Weyerhaeuser's overtures. In response, Weyerhaeuser launched a proxy battle, and, in a very close contest, succeeded in its attempt to place its nominees on the board.

Another way that management can be replaced is by takeover. Those firms that are poorly managed are more attractive as acquisitions than well-managed firms because a greater profit potential exists. Thus, avoiding a takeover by another firm gives management another incentive to act in the stockholders' interests.

Work the Web

WWW

The Web is a great place to learn more about individual companies, and there are a slew of sites available to help you. Try pointing your web browser to finance.yahoo.com. Once you get there, you should see something like this on the page:

YAHOO! FINANCE

Finance Home - Yahoo! - Help

Dow 10167.15 -132.25 (-1.28%)	Nasdaq 1960.70 -66.01 (-3.26%)	S&P 500 1180.42 -18.36 (-1.53%)
10-Yr Bond 5.272% -0.068	NYSE Volume 1,101,647,000	Nasdaq Volume 1,449,359,000

Get Quotes | Detailed | symbol lookup

To look up a company, you must know its "ticker symbol" (or just ticker for short), which is a unique one-to-four-letter identifier. You can click on the "Symbol Lookup" link and type in the company's name to find the ticker. For example, we typed in "PZZA," which is the ticker for pizza-maker Papa John's. Here is a portion of what we got:

PAPA JOHN'S (NasdaqNM:PZZA) - More Info: News, Msgs, Profile, Research, Insider, Options
- Trade: Choose Brokerage

Last Trade	Change		Prev Cls	Volume	Div Date
3:26PM · **23.73**	-0.44 (-1.82%)		24.17	129,600	Nov 22, 1996
Day's Range	Bid	Ask	Open	Avg Vol	Ex-Div
23.51 - 24.45	23.62	23.70	24.15	239,500	Nov 25, 1996
52-week Range	Earn/Shr	P/E	Mkt Cap	Div/Shr	Yield
19.0000 - 29.6400	1.41	17.17	532.6M	N/A	N/A

Small: [1d | 5d | **1y** | none]
Big: [1d | 5d | 3m | 6m | 1y | 2y | 5y | max]

Add to My Portfolio - Set Alert | Non-Tables Version - Download Spreadsheet

There's a lot of information here and a lot of links for you to explore, so have at it. By the end of the term, we hope it all makes sense to you!

Conclusion The available theory and evidence are consistent with the view that stockholders control the firm and that stockholder wealth maximization is the relevant goal of the corporation. Even so, there will undoubtedly be times when management goals are pursued at the expense of the stockholders, at least temporarily.

Stakeholders

Our discussion thus far implies that management and stockholders are the only parties with an interest in the firm's decisions. This is an oversimplification, of course. Employees, customers, suppliers, and even the government all have a financial interest in the firm.

stakeholder
Someone other than a stockholder or creditor who potentially has a claim on the cash flows of the firm.

Taken together, these various groups are called **stakeholders** in the firm. In general, a stakeholder is someone other than a stockholder or creditor who potentially has a claim on the cash flows of the firm. Such groups will also attempt to exert control over the firm, perhaps to the detriment of the owners.

CONCEPT QUESTIONS

1.4a What is an agency relationship?

1.4b What are agency problems and how do they come about? What are agency costs?

1.4c What incentives do managers in large corporations have to maximize share value?

FINANCIAL MARKETS AND THE CORPORATION

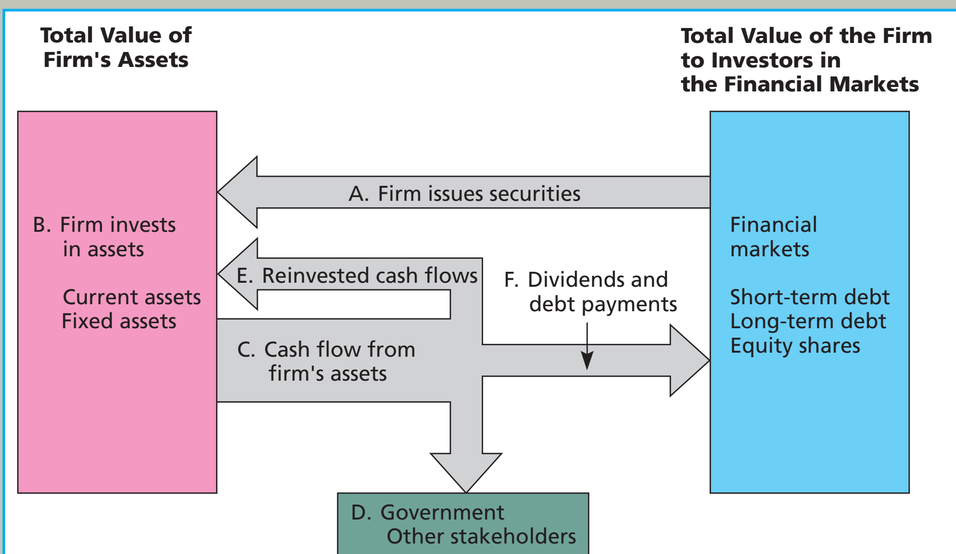
1.5

We've seen that the primary advantages of the corporate form of organization are that ownership can be transferred more quickly and easily than with other forms and that money can be raised more readily. Both of these advantages are significantly enhanced by the existence of financial markets, and financial markets play an extremely important role in corporate finance.

Cash Flows to and from the Firm

The interplay between the corporation and the financial markets is illustrated in Figure 1.2. The arrows in Figure 1.2 trace the passage of cash from the financial markets to the firm and from the firm back to the financial markets.

Cash Flows between the Firm and the Financial Markets **FIGURE 1.2**



A. Firm issues securities to raise cash.
B. Firm invests in assets.
C. Firm's operations generate cash flow.
D. Cash is paid to government as taxes. Other stakeholders may receive cash.
E. Reinvested cash flows are plowed back into firm.
F. Cash is paid out to investors in the form of interest and dividends.

Suppose we start with the firm selling shares of stock and borrowing money to raise cash. Cash flows to the firm from the financial markets (A). The firm invests the cash in current and fixed assets (B). These assets generate some cash (C), some of which goes to pay corporate taxes (D). After taxes are paid, some of this cash flow is reinvested in the firm (E). The rest goes back to the financial markets as cash paid to creditors and shareholders (F).

A financial market, like any market, is just a way of bringing buyers and sellers together. In financial markets, it is debt and equity securities that are bought and sold. Financial markets differ in detail, however. The most important differences concern the types of securities that are traded, how trading is conducted, and who the buyers and sellers are. Some of these differences are discussed next.

Primary versus Secondary Markets

Financial markets function as both primary and secondary markets for debt and equity securities. The term *primary market* refers to the original sale of securities by governments and corporations. The *secondary markets* are those in which these securities are bought and sold after the original sale. Equities are, of course, issued solely by corporations. Debt securities are issued by both governments and corporations. In the discussion that follows, we focus on corporate securities only.

Primary Markets In a primary market transaction, the corporation is the seller, and the transaction raises money for the corporation. Corporations engage in two types of primary market transactions: public offerings and private placements. A public offering, as the name suggests, involves selling securities to the general public, whereas a private placement is a negotiated sale involving a specific buyer.

To learn more about the SEC, visit www.sec.gov.

By law, public offerings of debt and equity must be registered with the Securities and Exchange Commission (SEC). Registration requires the firm to disclose a great deal of information before selling any securities. The accounting, legal, and selling costs of public offerings can be considerable.

Partly to avoid the various regulatory requirements and the expense of public offerings, debt and equity are often sold privately to large financial institutions such as life insurance companies or mutual funds. Such private placements do not have to be registered with the SEC and do not require the involvement of underwriters (investment banks that specialize in selling securities to the public).

Secondary Markets A secondary market transaction involves one owner or creditor selling to another. It is therefore the secondary markets that provide the means for transferring ownership of corporate securities. Although a corporation is only directly involved in a primary market transaction (when it sells securities to raise cash), the secondary markets are still critical to large corporations. The reason is that investors are much more willing to purchase securities in a primary market transaction when they know that those securities can later be resold if desired.

Dealer versus Auction Markets There are two kinds of secondary markets: *auction* markets and *dealer* markets. Generally speaking, dealers buy and sell for themselves, at their own risk. A car dealer, for example, buys and sells automobiles. In contrast, brokers and agents match buyers and sellers, but they do not actually own the commodity that is bought or sold. A real estate agent, for example, does not normally buy and sell houses.

Dealer markets in stocks and long-term debt are called *over-the-counter* (OTC) markets. Most trading in debt securities takes place over the counter. The expression *over the counter* refers to days of old when securities were literally bought and sold at counters in offices around the country. Today, a significant fraction of the market for stocks and almost all of the market for long-term debt have no central location; the many dealers are connected electronically.

Auction markets differ from dealer markets in two ways. First, an auction market or exchange has a physical location (like Wall Street). Second, in a dealer market, most of the buying and selling is done by the dealer. The primary purpose of an auction market, on the other hand, is to match those who wish to sell with those who wish to buy. Dealers play a limited role.

Trading in Corporate Securities The equity shares of most of the large firms in the United States trade in organized auction markets. The largest such market is the New York Stock Exchange (NYSE), which accounts for more than 85 percent of all the shares traded in auction markets. Other auction exchanges include the American Stock Exchange (AMEX) and regional exchanges such as the Pacific Stock Exchange.

In addition to the stock exchanges, there is a large OTC market for stocks. In 1971, the National Association of Securities Dealers (NASD) made available to dealers and brokers an electronic quotation system called NASDAQ (NASD Automated Quotation system, pronounced "naz-dak" and now spelled "Nasdaq"). There are roughly two times as many companies on Nasdaq as there are on NYSE, but they tend to be much smaller in size and trade less actively. There are exceptions, of course. Both Microsoft and Intel trade OTC, for example. Nonetheless, the total value of Nasdaq stocks is much less than the total value of NYSE stocks.

To learn more about the exchanges, visit www.nyse.com and www.nasdaq.com.

There are many large and important financial markets outside the United States, of course, and U.S. corporations are increasingly looking to these markets to raise cash. The Tokyo Stock Exchange and the London Stock Exchange (TSE and LSE, respectively) are two well-known examples. The fact that OTC markets have no physical location means that national borders do not present a great barrier, and there is now a huge international OTC debt market. Because of globalization, financial markets have reached the point where trading in many investments never stops; it just travels around the world.

Listing Stocks that trade on an organized exchange are said to be *listed* on that exchange. In order to be listed, firms must meet certain minimum criteria concerning, for example, asset size and number of shareholders. These criteria differ from one exchange to another.

NYSE has the most stringent requirements of the exchanges in the United States. For example, to be listed on NYSE, a company is expected to have a market value for its publicly held shares of at least $100 million and a total of at least 2,000 shareholders with at least 100 shares each. There are additional minimums on earnings, assets, and number of shares outstanding.

CONCEPT QUESTIONS

1.5a What is a dealer market? How do dealer and auction markets differ?
1.5b What is the largest auction market in the United States?
1.5c What does *OTC* stand for? What is the large OTC market for stocks called?

1.6 SUMMARY AND CONCLUSIONS

This chapter introduced you to some of the basic ideas in corporate finance. In it, we saw that:

1. Corporate finance has three main areas of concern:
   a. Capital budgeting. What long-term investments should the firm take?
   b. Capital structure. Where will the firm get the long-term financing to pay for its investments? In other words, what mixture of debt and equity should we use to fund our operations?
   c. Working capital management. How should the firm manage its everyday financial activities?
2. The goal of financial management in a for-profit business is to make decisions that increase the value of the stock, or, more generally, increase the market value of the equity.
3. The corporate form of organization is superior to other forms when it comes to raising money and transferring ownership interests, but it has the significant disadvantage of double taxation.
4. There is the possibility of conflicts between stockholders and management in a large corporation. We called these conflicts agency problems and discussed how they might be controlled and reduced.
5. The advantages of the corporate form are enhanced by the existence of financial markets. Financial markets function as both primary and secondary markets for corporate securities and can be organized as either dealer or auction markets.

Of the topics we've discussed thus far, the most important is the goal of financial management: maximizing the value of the stock. Throughout the text, we will be analyzing many different financial decisions, but we will always ask the same question: How does the decision under consideration affect the value of the stock?

Concepts Review and Critical Thinking Questions

1. **The Financial Management Decision Process** What are the three types of financial management decisions? For each type of decision, give an example of a business transaction that would be relevant.
2. **Sole Proprietorships and Partnerships** What are the four primary disadvantages of the sole proprietorship and partnership forms of business organization? What benefits are there to these types of business organization as opposed to the corporate form?
3. **Corporations** What is the primary disadvantage of the corporate form of organization? Name at least two of the advantages of corporate organization.
4. **Corporate Finance Organization** In a large corporation, what are the two distinct groups that report to the chief financial officer? Which group is the focus of corporate finance?
5. **Goal of Financial Management** What goal should always motivate the actions of the firm's financial manager?
6. **Agency Problems** Who owns a corporation? Describe the process whereby the owners control the firm's management. What is the main reason that an

agency relationship exists in the corporate form of organization? In this context, what kinds of problems can arise?

7. **Primary versus Secondary Markets** You've probably noticed coverage in the financial press of an initial public offering (IPO) of a company's securities. Is an IPO a primary-market transaction or a secondary-market transaction?

8. **Auction versus Dealer Markets** What does it mean when we say the New York Stock Exchange is an auction market? How are auction markets different from dealer markets? What kind of market is Nasdaq?

9. **Not-for-Profit Firm Goals** Suppose you were the financial manager of a not-for-profit business (a not-for-profit hospital, perhaps). What kinds of goals do you think would be appropriate?

10. **Goal of the Firm** Evaluate the following statement: Managers should not focus on the current stock value because doing so will lead to an overemphasis on short-term profits at the expense of long-term profits.

11. **Ethics and Firm Goals** Can our goal of maximizing the value of the stock conflict with other goals, such as avoiding unethical or illegal behavior? In particular, do you think subjects like customer and employee safety, the environment, and the general good of society fit in this framework, or are they essentially ignored? Try to think of some specific scenarios to illustrate your answer.

12. **International Firm Goal** Would our goal of maximizing the value of the stock be different if we were thinking about financial management in a foreign country? Why or why not?

13. **Agency Problems** Suppose you own stock in a company. The current price per share is $25. Another company has just announced that it wants to buy your company and will pay $35 per share to acquire all the outstanding stock. Your company's management immediately begins fighting off this hostile bid. Is management acting in the shareholders' best interests? Why or why not?

14. **Agency Problems and Corporate Ownership** Corporate ownership varies around the world. Historically, individuals have owned the majority of shares in public corporations in the United States. In Germany and Japan, however, banks, other large financial institutions, and other companies own most of the stock in public corporations. Do you think agency problems are likely to be more or less severe in Germany and Japan than in the United States? Why? In recent years, large financial institutions such as mutual funds and pension funds have been becoming the dominant owners of stock in the United States, and these institutions are becoming more active in corporate affairs. What are the implications of this trend for agency problems and corporate control?

15. **Executive Compensation** Critics have charged that compensation to top management in the United States is simply too high and should be cut back. For example, focusing on large corporations, Millard Drexler of clothing retailer The Gap has been one of the best compensated CEOs in the United States, earning about $13 million in 2001 alone and almost $400 million over the 1996–2001 period. Are such amounts excessive? In answering, it might be helpful to recognize that superstar athletes such as Tiger Woods, top entertainers such as Bruce Willis and Oprah Winfrey, and many others at the top of their respective fields earn at least as much, if not a great deal more.

S&P Problems

STANDARD & POOR'S

1. **Industry Comparison** On the Market Insight Home Page, follow the "Industry" link at the top of the page. You will be on the industry page. You can use the drop down menu to select different industries. Answer the following questions for these industries: Airlines, Automobiles, Biotechnology, Computers (Software & Services), Homebuilding, Manufacturing (Diversified), Restaurants, Retail (General Merchandise), and Telecommunications (Cellular/Wireless).
   a. How many companies are in each industry?
   b. What are the total sales for each industry?
   c. Do the industries with the largest total sales have the most companies in the industry? What does this tell you about competition in the various industries?

What's On the Web?

1.1 **Listing Requirements** This chapter discussed some of the listing requirements for the NYSE and Nasdaq. Find the complete listing requirements for the New York Stock Exchange at www.nyse.com and Nasdaq at www.nasdaq.com. Which exchange has more stringent listing requirements? Why don't the exchanges have the same listing requirements?

1.2. **Business Formation** As you may (or may not) know, many companies incorporate in Delaware for a variety of reasons. Visit Bizfilings at www.bizfilings.com to find out why. Which state has the highest fee for incorporation? For an LLC? While at the site, look at the FAQ section regarding corporations and LLCs.

1.3. **Organizational Structure** The organizational structure chart in the text is a simplified version. Go to www.conference-board.org, follow the "Organization Charts" link, and then the "Click here to see a sample chart" link. What are the differences in the two diagrams? Who reports to the chief financial officer? How many vice presidents does this company have?

CHAPTER 2

Financial Statements, Taxes, and Cash Flow

In April 2001, General Electric Company (GE) announced it would take a first quarter charge of $444 million against earnings. General Electric was not alone. Other companies such as Coca-Cola, Deutsche Bank, Broadcom, Forest Oil, and 7-Eleven were also forced to change their reported earnings. Performance wasn't the issue. Instead, a change in accounting rules forced companies to recalculate the value of certain types of financial instruments.

So, did stockholders in General Electric lose $444 million as a result of accounting rule changes? Probably not. Understanding why ultimately leads us to the main subject of this chapter, that all-important substance known as *cash flow.*

In this chapter, we examine financial statements, taxes, and cash flow. Our emphasis is not on preparing financial statements. Instead, we recognize that financial statements are frequently a key source of information for financial decisions, so our goal is to briefly examine such statements and point out some of their more relevant features. We pay special attention to some of the practical details of cash flow.

As you read, pay particular attention to two important differences: (1) the difference between accounting value and market value, and (2) the difference between accounting income and cash flow. These distinctions will be important throughout the book.

2.1 THE BALANCE SHEET

The **balance sheet** is a snapshot of the firm. It is a convenient means of organizing and summarizing what a firm owns (its assets), what a firm owes (its liabilities), and the difference between the two (the firm's equity) at a given point in time. Figure 2.1 illustrates how the balance sheet is constructed. As shown, the left-hand side lists the assets of the firm, and the right-hand side lists the liabilities and equity.

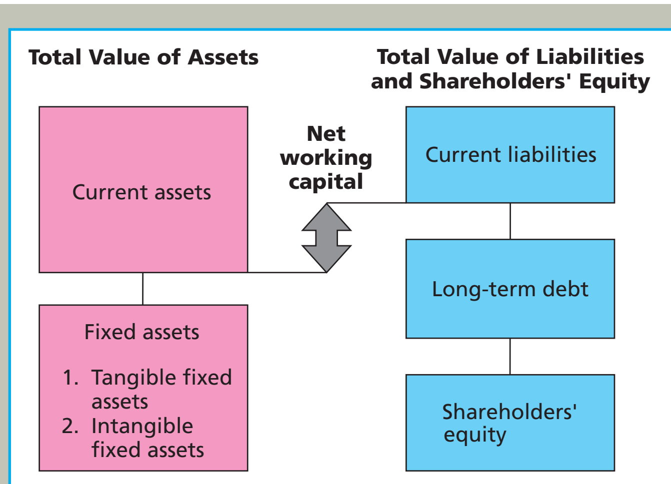
balance sheet
Financial statement showing a firm's accounting value on a particular date.

Assets: The Left-Hand Side

Assets are classified as either *current* or *fixed.* A fixed asset is one that has a relatively long life. Fixed assets can be either *tangible,* such as a truck or a computer, or

FIGURE 2.1

The Balance Sheet. Left side: total value of assets. Right side: total value of liabilities and shareholders' equity.



intangible, such as a trademark or patent. A current asset has a life of less than one year. This means that the asset will convert to cash within 12 months. For example, inventory would normally be purchased and sold within a year and is thus classified as a current asset. Obviously, cash itself is a current asset. Accounts receivable (money owed to the firm by its customers) is also a current asset.

Two excellent sites for company financial information are finance.yahoo.com and money.cnn.com.

Liabilities and Owners' Equity: The Right-Hand Side

The firm's liabilities are the first thing listed on the right-hand side of the balance sheet. These are classified as either *current* or *long-term.* Current liabilities, like current assets, have a life of less than one year (meaning they must be paid within the year) and are listed before long-term liabilities. Accounts payable (money the firm owes to its suppliers) is one example of a current liability.

A debt that is not due in the coming year is classified as a long-term liability. A loan that the firm will pay off in five years is one such long-term debt. Firms borrow in the long term from a variety of sources. We will tend to use the terms *bond* and *bondholders* generically to refer to long-term debt and long-term creditors, respectively.

Finally, by definition, the difference between the total value of the assets (current and fixed) and the total value of the liabilities (current and long-term) is the *shareholders' equity,* also called *common equity* or *owners' equity.* This feature of the balance sheet is intended to reflect the fact that, if the firm were to sell all of its assets and use the money to pay off its debts, then whatever residual value remained would belong to the shareholders. So, the balance sheet "balances" because the value of the left-hand side always equals the value of the right-hand side. That is, the value of the firm's assets is equal to the sum of its liabilities and shareholders' equity:[1]

$$\text{Assets} = \text{Liabilities} + \text{Shareholders' equity} \qquad [2.1]$$

This is the balance sheet identity, or equation, and it always holds because shareholders' equity is defined as the difference between assets and liabilities.

[1]The terms *owners' equity, shareholders' equity,* and *stockholders' equity* are used interchangeably to refer to the equity in a corporation. The term *net worth* is also used. Variations exist in addition to these.

Net Working Capital

As shown in Figure 2.1, the difference between a firm's current assets and its current liabilities is called **net working capital**. Net working capital is positive when current assets exceed current liabilities. Based on the definitions of current assets and current liabilities, this means that the cash that will become available over the next 12 months exceeds the cash that must be paid over that same period. For this reason, net working capital is usually positive in a healthy firm.

net working capital Current assets less current liabilities.

EXAMPLE 2.1

Building the Balance Sheet

A firm has current assets of \$100, net fixed assets of \$500, short-term debt of \$70, and long-term debt of \$200. What does the balance sheet look like? What is shareholders' equity? What is net working capital?

In this case, total assets are \$100 + 500 = \$600 and total liabilities are \$70 + 200 = \$270, so shareholders' equity is the difference: \$600 − 270 = \$330. The balance sheet would thus look like:

Assets		Liabilities and Shareholders' Equity	
Current assets	\$100	Current liabilities	\$ 70
Net fixed assets	500	Long-term debt	200
		Shareholders' equity	330
Total assets	\$600	Total liabilities and shareholders' equity	\$600

Net working capital is the difference between current assets and current liabilities, or \$100 − 70 = \$30.

Table 2.1 (next page) shows a simplified balance sheet for the fictitious U.S. Corporation. The assets on the balance sheet are listed in order of the length of time it takes for them to convert to cash in the normal course of business. Similarly, the liabilities are listed in the order in which they would normally be paid.

The structure of the assets for a particular firm reflects the line of business that the firm is in and also managerial decisions about how much cash and inventory to have and about credit policy, fixed asset acquisition, and so on.

Disney has a good investor site at www.disney.com.

The liabilities side of the balance sheet primarily reflects managerial decisions about capital structure and the use of short-term debt. For example, in 2002, total long-term debt for U.S. was \$454 and total equity was \$640 + 1,629 = \$2,269, so total long-term financing was \$454 + 2,269 = \$2,723. (Note that, throughout, all figures are in millions of dollars.) Of this amount, \$454/2,723 = 16.67% was long-term debt. This percentage reflects capital structure decisions made in the past by the management of U.S.

There are three particularly important things to keep in mind when examining a balance sheet: liquidity, debt versus equity, and market value versus book value.

Liquidity

Liquidity refers to the speed and ease with which an asset can be converted to cash. Gold is a relatively liquid asset; a custom manufacturing facility is not. Liquidity actually has two dimensions: ease of conversion versus loss of value. Any asset can be converted to cash quickly if we cut the price enough. A highly liquid asset is therefore one that can be quickly sold without significant loss of value. An illiquid asset is one that cannot be quickly converted to cash without a substantial price reduction.

TABLE 2.1

U.S. CORPORATION
Balance Sheets as of December 31, 2001 and 2002
($ in millions)

	2001	2002		2001	2002
Assets			**Liabilities and Owners' Equity**		
Current assets			Current liabilities		
Cash	$ 104	$ 160	Accounts payable	$ 232	$ 266
Accounts receivable	455	688	Notes payable	196	123
Inventory	553	555	Total	$ 428	$ 389
Total	$1,112	$1,403			
Fixed assets					
Net plant and equipment	$1,644	$1,709	Long-term debt	$ 408	$ 454
			Owners' equity		
			Common stock and paid-in surplus	600	640
			Retained earnings	1,320	1,629
			Total	$1,920	$2,269
Total assets	$2,756	$3,112	Total liabilities and owners' equity	$2,756	$3,112

Annual and quarterly financial statements (and lots more) for most public U.S. corporations can be found in the EDGAR database at www.sec.gov.

Assets are normally listed on the balance sheet in order of decreasing liquidity, meaning that the most liquid assets are listed first. Current assets are relatively liquid and include cash and those assets that we expect to convert to cash over the next 12 months. Accounts receivable, for example, represents amounts not yet collected from customers on sales already made. Naturally, we hope these will convert to cash in the near future. Inventory is probably the least liquid of the current assets, at least for many businesses.

Fixed assets are, for the most part, relatively illiquid. These consist of tangible things such as buildings and equipment that don't convert to cash at all in normal business activity (they are, of course, used in the business to generate cash). Intangible assets, such as a trademark, have no physical existence but can be very valuable. Like tangible fixed assets, they won't ordinarily convert to cash and are generally considered illiquid.

Liquidity is valuable. The more liquid a business is, the less likely it is to experience financial distress (that is, difficulty in paying debts or buying needed assets). Unfortunately, liquid assets are generally less profitable to hold. For example, cash holdings are the most liquid of all investments, but they sometimes earn no return at all—they just sit there. There is therefore a trade-off between the advantages of liquidity and forgone potential profits.

Debt versus Equity

To the extent that a firm borrows money, it usually gives first claim to the firm's cash flow to creditors. Equity holders are only entitled to the residual value, the portion left after creditors are paid. The value of this residual portion is the shareholders' equity in the firm, which is just the value of the firm's assets less the value of the firm's liabilities:

Shareholders' equity = Assets − Liabilities

This is true in an accounting sense because shareholders' equity is defined as this residual portion. More important, it is true in an economic sense: If the firm sells its assets and pays its debts, whatever cash is left belongs to the shareholders.

The use of debt in a firm's capital structure is called *financial leverage.* The more debt a firm has (as a percentage of assets), the greater is its degree of financial leverage. As we discuss in later chapters, debt acts like a lever in the sense that using it can greatly magnify both gains and losses. So, financial leverage increases the potential reward to shareholders, but it also increases the potential for financial distress and business failure.

Market Value versus Book Value

The values shown on the balance sheet for the firm's assets are *book values* and generally are not what the assets are actually worth. Under **Generally Accepted Accounting Principles (GAAP)**, audited financial statements in the United States generally show assets at *historical cost.* In other words, assets are "carried on the books" at what the firm paid for them, no matter how long ago they were purchased or how much they are worth today.

Generally Accepted Accounting Principles (GAAP)
The common set of standards and procedures by which audited financial statements are prepared.

The home page for the Financial Accounting Standard Board (FASB) is www.fasb.org.

For current assets, market value and book value might be somewhat similar because current assets are bought and converted into cash over a relatively short span of time. In other circumstances, the two values might differ quite a bit. Moreover, for fixed assets, it would be purely a coincidence if the actual market value of an asset (what the asset could be sold for) were equal to its book value. For example, a railroad might own enormous tracts of land purchased a century or more ago. What the railroad paid for that land could be hundreds or thousands of times less than what the land is worth today. The balance sheet would nonetheless show the historical cost.

The difference between market value and book value is important for understanding the impact of reported gains and losses. For example, to open the chapter, we discussed the huge charges against earnings taken by GE and other large, well-known corporations. What actually happened is that these charges were the result of accounting rule changes that led to reductions in the book value of certain types of financial assets. However, a change in accounting rules all by itself has no effect on what the assets in question are really worth. Instead, the market value of a financial asset depends on things like its riskiness and cash flows, neither of which have anything to do with accounting.

The balance sheet is potentially useful to many different parties. A supplier might look at the size of accounts payable to see how promptly the firm pays its bills. A potential creditor would examine the liquidity and degree of financial leverage. Managers within the firm can track things like the amount of cash and the amount of inventory that the firm keeps on hand. Uses such as these are discussed in more detail in Chapter 3.

Managers and investors will frequently be interested in knowing the value of the firm. This information is not on the balance sheet. The fact that balance sheet assets are listed at cost means that there is no necessary connection between the total assets shown and the value of the firm. Indeed, many of the most valuable assets that a firm might have—good management, a good reputation, talented employees—don't appear on the balance sheet at all.

Similarly, the shareholders' equity figure on the balance sheet and the true value of the stock need not be related. For financial managers, then, the accounting value of the stock is not an especially important concern; it is the market value that matters. Henceforth, whenever we speak of the value of an asset or the value of the firm, we will normally mean its *market value*. So, for example, when we say the goal of the financial manager is to increase the value of the stock, we mean the market value of the stock.

EXAMPLE 2.2

Market Value versus Book Value

The Klingon Corporation has fixed assets with a book value of $700 and an appraised market value of about $1,000. Net working capital is $400 on the books, but approximately $600 would be realized if all the current accounts were liquidated. Klingon has $500 in long-term debt, both book value and market value. What is the book value of the equity? What is the market value?

We can construct two simplified balance sheets, one in accounting (book value) terms and one in economic (market value) terms:

KLINGON CORPORATION
Balance Sheets
Market Value versus Book Value

	Book	Market		Book	Market
Assets			**Liabilities and Shareholders' Equity**		
Net working capital	$ 400	$ 600	Long-term debt	$ 500	$ 500
Net fixed assets	700	1,000	Shareholders' equity	600	1,100
	$1,100	$1,600		$1,100	$1,600

In this example, shareholders' equity is actually worth almost twice as much as what is shown on the books. The distinction between book and market values is important precisely because book values can be so different from true economic value.

CONCEPT QUESTIONS

2.1a What is the balance sheet identity?
2.1b What is liquidity? Why is it important?
2.1c What do we mean by financial leverage?
2.1d Explain the difference between accounting value and market value. Which is more important to the financial manager? Why?

2.2 THE INCOME STATEMENT

The **income statement** measures performance over some period of time, usually a quarter or a year. The income statement equation is:

$$\text{Revenues} - \text{Expenses} = \text{Income} \quad [2.2]$$

income statement Financial statement summarizing a firm's performance over a period of time.

If you think of the balance sheet as a snapshot, then you can think of the income statement as a video recording covering the period between a before and an after picture. Table 2.2 gives a simplified income statement for U.S. Corporation.

The first thing reported on an income statement would usually be revenue and expenses from the firm's principal operations. Subsequent parts include, among other things, financing expenses such as interest paid. Taxes paid are reported separately. The last item is *net income* (the so-called bottom line). Net income is often expressed on a per-share basis and called *earnings per share (EPS)*.