# 1

# Introduction

CHAPTER 1

# The Corporation and the Financial Manager



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Corporate finance boils down to the investment and financing decisions made by corporations. Financial managers in corporations work with other managers to identify investment opportunities, to analyze and value the opportunities, and to decide whether and how much to invest. Financial managers also have to raise the money to finance the corporation's investments. Therefore we start this chapter with examples of recent investment and financing decisions by major U.S. and foreign corporations. We also review what a corporation is and describe the special roles of a corporation's top financial managers, including the chief financial officer (CFO), treasurer, and controller. Later in the chapter we will review several possible career paths in finance.

Next we turn to the financial goals of the corporation. Should it maximize value, or is it enough to survive and avoid bankruptcy? Should it strive to be a good corporate citizen? If the firm maximizes value for its stockholders, can it also be a good corporate citizen? We also consider the conflicts of interest that arise in large corporations and review the mechanisms that align the interests of the firm's managers with the interests of stockholders. Finally, we look ahead to the rest of this book and look back to some entertaining snippets of financial history.

**After studying this chapter you should be able to:**

- Give examples of the investment and financing decisions that financial managers make, and explain the responsibilities of the CFO, treasurer, and controller.
- Cite some of the advantages and disadvantages of organizing a business as a corporation.
- Explain why maximizing market value is the logical financial goal for the corporation.
- Understand why conflicts of interest arise, especially in large, public corporations.
- Explain how corporations mitigate conflicts and encourage ethical, cooperative behavior.
- Give examples of career paths in finance.

# 1.1 Investment and Financing Decisions

This book is an introduction to corporate finance and the profession of financial management. Let's begin with a look at some of the decisions that a financial manager is required to make.

Table 1–1 lists nine corporations. Seven are U.S. corporations. Three are foreign: BP's headquarters are in London, LVMH's in Paris,[1] and Toyota's in Japan. We have chosen very large public corporations that you are probably already familiar with. You probably have traveled on a Boeing jet or shopped at Wal-Mart, for example.

What do these companies have to be "good at" in order to succeed in their businesses? The first answers are obvious. For example, Boeing has to produce and sell planes that are technologically advanced, safe, reliable, and efficient. Pfizer has to discover, develop, and sell effective new drugs. Toyota has to make and sell cars that are at least as good as competitive models from GM, Ford, Honda and other manufacturers.

But each of these companies also has to be *good at finance.* This means that each has to make good *investment decisions* and good *financing decisions.* Superior investment and financing decisions could put these companies a step ahead of their competitors. A series of bad investment or financing decisions could cause severe damage.

Table 1–1 gives for each company an example of a recent investment and financing decision. Take a look at the decisions now. We think you will agree that they appear sensible or at least that there is nothing obviously wrong with them. But if you are new to finance, it will be difficult to think about why these companies made these decisions and not others.

Making good investment and financing decisions is the chief task of the financial manager. Let's consider each class of decisions in more detail.

## The Investment (Capital Budgeting) Decision

**capital budgeting decision** or **investment decision** Decision to invest in tangible or intangible assets.

The **investment decision** starts with the identification of investment opportunities, often referred to as *capital investment projects.* The financial manager has to help the firm identify promising projects and decide how much to invest in each project. The investment decision is also called the **capital budgeting decision,** because most firms prepare an annual budget listing authorized capital investments.

In the distant past, "capital investments" included only investments in tangible assets, such as investment in Toyota's automobile plant in Texas or Union Pacific's new locomotives. But you can see from Table 1–1 that the scope of the investment decision is now much broader. It includes investment in intangible assets, for example, investment in research and development (R&D), advertising and marketing of new products, or acquisition of patents and trademarks. Pfizer and other major pharmaceutical companies invest billions every year on R&D for new drugs, for example. Gillette invested about $300 million to advertise the launch of its Mach3 razor. In this case the intangible asset was brand recognition and acceptance.

The world of business can be intensely competitive, and corporations survive and prosper only if they can keep launching new products or services. In some cases the costs and risks of doing so are amazingly large. Boeing is investing more than $7 billion[2] to design, test, build, and sell the new 787 Dreamliner series of aircraft. At the same time its European archrival Airbus is investing more than $12 billion in the new A380 superjumbo aircraft. Each firm is "betting the company" on the success of these investments.

Not all capital investments succeed. The Iridium communications satellite system, which offered its users instant telephone connections worldwide, soaked up $5 billion

[1] LVMH (Moët Hennessy Louis Vuitton) markets perfumes and cosmetics, wines and spirits, watches, and other fashion and luxury goods.

[2] Some estimates of the total investment, including investment by suppliers and support from state, local, and national governments, run as high as $13 billion.

**TABLE 1–1** **Examples of recent investment and financing decisions by major public companies. Revenues, investment costs, and financing proceeds are expressed in U.S. dollars.**

| Company (2004 revenues in billions) | Recent Investment (Capital Budgeting) Decision | Recent Financing Decision |
|---|---|---|
| Boeing ($52.5) | Committed more than $7 billion to design, build, test, and sell the 787 Dreamliner aircraft series. | Negotiated with suppliers to help finance the Dreamliner project. Japanese suppliers, who will build the wing and fuselage, are raising and investing more than $1.5 billion. |
| Bank of America ($48.9) | Acquired Fleet Boston Financial for $49 billion. | Issued about 600 million new shares to finance the acquisition. |
| BP ($285) | Invested $600 million to develop the Mad Dog and related oil fields offshore in the Gulf of Mexico. | Announced plans to return surplus cash flow (cash flow not needed for investment and cash dividends) to shareholders. The cash will be returned by repurchasing BP shares from investors. |
| Citigroup ($86) | Spent $100 million building bank branches and ATMs in Moscow and St. Petersburg, Russia. | Raised $82 billion in debt financing secured by credit card receivables, that is, by outstanding balances on Citigroup-owned credit cards. |
| LVMH ($17.1) | Acquired Glenmorangie PLC, a producer of scotch malt whiskies. | Issued a 7-year bond in July 2004, raising the euro equivalent of $812 million. |
| Pfizer ($52.5) | Spent $7.7 billion in 2004 on research and testing of new drugs. | Financed the research and testing with reinvested cash flow generated by sales of pharmaceutical products. |
| Toyota ($164) | Building an $800 million automobile plant in San Antonio, Texas. | Total borrowing increased by $2.9 billion during 2004, mainly due to issues of short-term debt in the U.S. |
| Union Pacific ($12.2) | Acquired 400 new locomotives in 2004. | Arranged bank credit lines that will allow Union Pacific to borrow up to $2 billion if needed for its operations. |
| Wal-Mart ($285) | Plans for 2005 call for up to 530 new retail stores in the U.S. and 165 stores in other countries. | Issued $1,883 million of long-term debt, maturing in 2036 and paying interest at 5.25% per year. |

in investment before it started operations in 1998. It needed 400,000 subscribers to break even, but attracted only a small fraction of that target number. Iridium defaulted on its debt and filed for bankruptcy in 1999. The Iridium system was sold a year later for just $25 million.

The investment in Iridium, though it looks stupid with hindsight, may have been rational, given what was known in the early 1990s when the go-ahead decision was made. It may have been a good decision thwarted by bad luck. There are no free guarantees in finance. But you can tilt the odds in your favor if you learn the tools of investment analysis and apply them intelligently. We will cover these tools in detail later in this book.

Today's capital investments generate future returns. Often the returns come in the distant future. Boeing is committing $7 billion to the 787 series because it believes that sales of 787s will generate cash returns for 30 years or more after the planes first enter commercial service. Those cash returns must recover the $7 billion investment and provide at least an adequate profit on that investment. The longer Boeing must wait for cash to flow back, the greater its required profit. Thus the financial manager must pay attention to the timing of project returns, not just their cumulative amount. In addition, these returns are rarely certain. A new project could be a smashing success or a dismal failure, like Iridium.

The financial manager needs a way of placing a *value* on the uncertain future cash inflows generated by capital investment projects. This value should account for the amounts, timing and risk of the future cash flows. If a project's value is greater than its required investment, then the project is attractive financially. An effective financial manager guides his or her firm to invest in projects that add more value than the investment required. In other words, the financial manager helps the firm to invest in projects that are worth more than they cost.

But do not think of financial managers making major investment decisions in solitary confinement. Financial managers may work as part of a team of engineers and managers from manufacturing, marketing, and other business functions. Often the final investment decision is made by senior nonfinancial management.

Also, do not think of the financial manager as making billion-dollar investments on a daily basis. Most investment decisions are smaller and simpler, such as the purchase of a truck, machine tool, or computer system. But the objective is still to add value, that is, to find and make investments that are worth more than they cost. Most firms make thousands of small investment decisions every year. The cumulative value added by the small decisions can be just as large as the value added by occasional big decisions like those shown in Table 1–1.

## The Financing Decision

**financing decision**
The form and amount of financing of a firm's investments.

**capital structure**
The mix of long-term debt and equity financing.

The financial manager's second main responsibility is to raise the money that the firm needs for its investments and operations. This is the **financing decision.** When a company needs to raise money, it can invite investors to put up cash in exchange for a share of future profits, or it can promise to pay back the investors' cash plus a fixed rate of interest. In the first case, the investors receive shares of stock and become shareholders, part owners of the corporation. The investors in this case are referred to as *equity investors,* who contribute *equity financing.* In the second case, the investors are lenders, that is, *debt investors,* who one day must be repaid. The choice between debt and equity financing is often called the **capital structure** decision. Here "capital" refers to the firm's sources of long-term financing. A firm that is seeking to raise long-term financing is said to be "raising capital."

The financing choices available to large corporations seem almost endless. Suppose the firm decides to borrow. Should it issue debt to investors, or should it borrow from a bank? Should it borrow for 1 year or 20 years? If it borrows for 20 years, should it reserve the right to pay off the debt early if interest rates fall? Should it borrow in Paris, receiving and promising to repay euros, or should it borrow dollars in New York? (As Table 1–1 shows, LVMH borrowed euros, but it could have borrowed dollars instead.) Should it offer specific assets as collateral to back its borrowing? (Note how Citigroup used its credit card receivables as collateral.) We will look at these and other choices in later chapters.

The decision to take out a 20-year loan or to issue new shares of stock obviously has long-term consequences. But the financial manager is also involved in many important short-term decisions. For example, he or she has to make sure that there is enough cash on hand to pay next week's bills and that any spare cash is put to work to earn interest. These are *short-term financing decisions* (how to raise cash to meet a short-term need) and *short-term investment decisions* (how to invest spare cash for brief periods).

The financial manager is involved in many other day-to-day activities that are essential to the smooth operation of the firm but not dramatic enough to show up in Table 1–1. For example, if the firm sells goods or services on credit, the firm has to make sure that its customers pay their bills on time. Corporations that operate internationally must constantly transfer cash from one currency to another. Manufacturing companies must decide how much to invest in inventories of raw materials and finished goods.

Businesses are inherently risky, so the financial manager has to identify risks and make sure they are managed properly. For example, the manager will want to ensure that the firm's operations will not be severely damaged by a rise in oil prices or a fall in the dollar. (Note in Table 1–1 that Toyota has increased short-term debt issues in

U.S. dollars rather than in its home currency. This makes sense because of Toyota's exports to the United States. The exports generate revenues in U.S. dollars.) In later chapters we will look at how managers assess risk and at some of the ways that firms can be protected from nasty surprises.

*Self-Test 1.1*

**Are the following capital budgeting or financing decisions? *Hint:* In one case the answer is "both."**

**a. Intel decides to spend $1 billion to develop a new microprocessor.**
**b. Volkswagen borrows 350 million euros (€350 million) from Deutsche Bank.**
**c. BP constructs a pipeline to bring natural gas onshore from a production platform in the Gulf of Mexico.**
**d. Budweiser spends €200 million to launch a new brand of beer in European markets.**
**e. Pfizer issues new shares to buy a small biotech company.**

Financing and investment decisions (both long- and short-term) are of course interconnected. The amount of investment determines the amount of financing that has to be raised, and the investors who contribute financing today expect a return on that investment in the future. Thus, the investments that the firm makes today have to generate future returns for payout to investors.

Figure 1–1 traces how money flows from investors to the firm and back to investors again. The flow starts when cash is raised from investors (arrow 1 in the figure). The cash is used to pay for the real assets (investment projects) needed for the firm's operations (arrow 2). Later, if the firm does well, the operations generate enough cash inflow to more than repay the initial investment (arrow 3). Finally, the cash is either reinvested (arrow 4*a*) or returned to the investors who furnished the money in the first place (arrow 4*b*). Of course, the choice between arrows 4*a* and 4*b* is constrained by the promises made when cash was raised at arrow 1. For example, if the firm borrows money from a bank at arrow 1, it must repay this money plus interest at arrow 4*b*.

You can see examples of arrows 4*a* and 4*b* in Table 1–1. Pfizer finances its drug research and testing by reinvesting earnings (arrow 4*a*). BP has decided to return cash to shareholders by buying back its stock (arrow 4*b*). In 2005, a year of very high energy prices, repurchases by BP will probably approach $10 billion.

Notice in Figure 1–1 how the financial manager stands between the firm and outside investors. On the one hand, the financial manager helps manage the firm's operations, particularly by helping to make good investment decisions. On the other, the financial manager deals with investors—not just with shareholders but also with banks and other financial institutions and with financial markets, such as the New York Stock Exchange. We will say more about financial markets and institutions in the next chapter.

**real assets**
Assets used to produce goods and services.

**financial assets**
Financial claims to the income generated by the firm's real assets.

Figure 1–1 also distinguishes **real assets** from **financial assets.** Real assets are used to produce the firm's products and services. They include tangible assets such as machinery, factories, and offices and intangible assets such as technical knowledge,

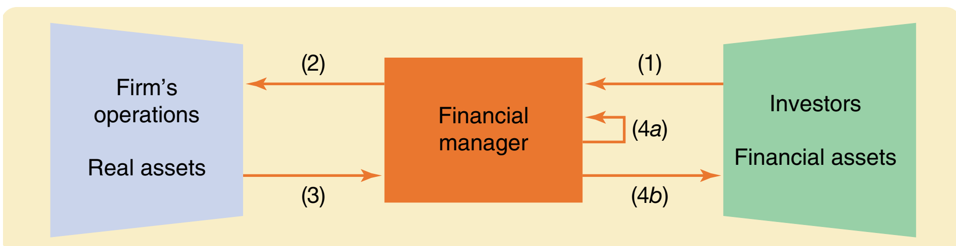



**FIGURE 1–1 Flow of cash between investors and the firm's operations. Key: (1) Cash raised by selling financial assets to investors; (2) cash invested in the firm's operations; (3) cash generated by the firm's operations; (4*a*) cash reinvested; (4*b*) cash returned to investors.**

trademarks, and patents. The firm finances its investments in real assets by issuing financial assets to investors. A share of stock is a financial asset, which has value as a claim on the firm's real assets and the income that those assets will produce. A bank loan is a financial asset also. It gives the bank the right to get its money back plus interest. If the firm's operations can't generate enough income to pay what the bank is owed, the bank can force the firm into bankruptcy and stake a claim on its real assets.

Shares of stock and other financial assets that can be purchased and traded by investors are called *securities.*

*Self-Test 1.2*

**Which of the following are financial assets, and which are real assets?**

**a. A patent.**
**b. A share of stock issued by Bank of New York.**
**c. A blast furnace in a steel-making factory.**
**d. A mortgage loan taken out to help pay for a new home.**
**e. After a successful advertising campaign, potential customers believe that your brand of potato chips is extra crispy.**
**f. An IOU ("I owe you") from your brother-in-law.**

## 1.2 What Is a Corporation?

The nine major corporations in Table 1–1 are a tiny subsample from the list of corporations operating around the world. There are about 8,000 *public companies* in the United States. "Public" means that the corporation's shares are traded in a securities market, such as the New York Stock Exchange, and therefore are available for purchase by any investor. There also are hundreds of thousands of *private corporations* whose shares are closely held by small groups of managers and investors. You can't purchase the shares of these private companies, except by negotiation with existing share owners.

**corporation**
A business organized as a separate legal entity owned by stockholders.

A **corporation** is a distinct, permanent legal entity. Suppose you decide to create a new corporation. You would work with a lawyer to prepare *articles of incorporation,* which set out the purpose of the business and how it is to be financed, managed, and governed. These articles must conform to the laws of the state in which the business is incorporated. For many purposes, the corporation is considered a resident of its state. For example, it can borrow or lend money and it can sue or be sued. It pays its own taxes (but it cannot vote!).

**limited liability**
The owners of a corporation are not personally liable for its obligations.

A corporation is legally distinct from its owners, who are called *shareholders* or *stockholders.*[3] A corporation therefore confers **limited liability:** Its owners cannot be held personally responsible for the corporation's debts. When Enron and WorldCom failed in 2002—two of the largest bankruptcies ever—no one demanded that their stockholders put up more money to cover the bankrupt companies' debts. Enron and WorldCom stockholders ended up with worthless shares and lost their entire investment in these firms but had no further liability.

### EXAMPLE 1.1 ► Business Organization

Suppose you own a commercial building and operate a restaurant in it. You have invested in the building itself, kitchen equipment, dining-room furnishings, a computer system to keep track of supplies and reservations, plus various other assets. If you do not incorporate, you own these assets personally, as the *sole proprietor* of the business. If you have borrowed money from a bank to start the business, then you are personally responsible for this debt. If the business loses money and cannot pay the bank,

[3] "Shareholder" and "stockholder" mean exactly the same thing and are used interchangeably.

FINANCE IN PRACTICE

## Other Forms of Business Organization

This book focuses on corporations, which tend to be larger firms with many shareholders. Proprietorships are usually small "mom-and-pop" businesses. What about the middle ground? What about businesses that grow too large for sole proprietorships, but don't want to reorganize as corporations?

Suppose you wish to pool money and expertise with some friends or business associates. You will form a *partnership* and enter into a partnership agreement that sets out how decisions are to be made and how profits are to be split up. Partners, like sole proprietors, face unlimited liability. If the business runs into difficulties, each partner can be held responsible for *all* the business's debts. The moral: Know thy partner.

Partnerships have a tax advantage. Partnerships, unlike corporations, do not have to pay income taxes. The partners simply pay personal income taxes on their shares of the profits.

Some businesses are hybrids that combine the tax advantage of a partnership with the limited liability advantage of a corporation. In a *limited partnership,* partners are classified as general or limited. General partners manage the business and have unlimited personal liability for its debts. Limited partners are liable only for the money they invest and do not participate in management.

Many states allow *limited liability partnerships (LLPs)* or, equivalently, *limited liability companies (LLCs).* These are partnerships in which all partners have limited liability. Another variation on the theme is the *professional corporation (PC),* which is commonly used by doctors, lawyers, and accountants. In this case, the business has limited liability, but the professionals can still be sued personally, for example for malpractice.

Most large investment banks such as Morgan Stanley, Merrill Lynch, and Goldman Sachs started life as partnerships. But eventually these companies and their financing requirements grew too large for them to continue as partnerships, and they reorganized as corporations. The partnership form of organization does not work well when ownership is widespread and separation of ownership and management is essential.

then the bank can demand that you raise cash by selling other assets—your car or house, for example—in order to repay the loan. But if you incorporate the restaurant business, and the corporation borrows from the bank, your other assets are shielded from the restaurant's debts. Of course this also means that the bank will be more cautious in lending if your restaurant is incorporated, because the bank will have no recourse to your other assets.

Notice that if you incorporate your business, you exchange direct ownership of its real assets (the building, kitchen equipment, etc.) for indirect ownership via financial assets (the shares of the new corporation).

Stockholders own the corporation, but they do not usually manage it. Instead, they elect a *board of directors,* who in turn appoint the top managers and monitor their performance. The board represents stockholders and is supposed to ensure that management is acting in their best interests.

This *separation of ownership and management* is one distinctive feature of corporations. (Contrast a sole proprietor, who is both owner and manager.) Separation gives corporations permanence. If managers are fired and replaced, the corporation survives. All of today's stockholders can sell out to new investors without necessarily affecting the conduct of the corporation's business.

Corporations can, in principle, live forever, and in practice they can survive many human lifetimes. One of the oldest corporations is the Hudson's Bay Company, which was formed in 1670 to profit from the fur trade between northern Canada and England, by sea via Hudson's Bay. The company still operates as one of Canada's leading retail chains.

Large, public corporations have thousands of stockholders. An individual may have 100 shares, receive 100 votes, and be entitled to a tiny fraction of the firm's income and value. A pension fund or insurance company may own millions of shares, receive millions of votes, and have a correspondingly large stake in the firm's performance.

Given all these advantages, you may wonder why all businesses are not organized as corporations. One reason is the costs, in both time and money, of managing the corporation's legal machinery. These costs are particularly burdensome for small businesses. There is also an important tax drawback to corporations in the United

States. Because the corporation is a separate legal entity, it is taxed separately. So corporations pay tax on their profits, and shareholders are taxed again when they receive dividends from the company or sell their shares at a profit.[4] By contrast, income generated by businesses that are not incorporated is taxed just once as personal income.

Corporations and proprietorships are not the only ways to organize a business. The nearby box discusses a few alternatives. These options may be especially attractive to growing firms, those too large for a single proprietor but too small to justify corporate organization.

## 1.3 Who Is the Financial Manager?

In this book we will use the term *financial manager* to refer to anyone responsible for a significant corporate investment or financing decision. But except in the smallest firms, no *single* person is responsible for all the decisions discussed in this book. Responsibility is dispersed throughout the firm. Top management is of course constantly involved in financial decisions. But the engineer who designs a new production facility is also involved: The design determines the kind of real asset the firm will invest in. Likewise the marketing manager who undertakes a major advertising campaign is making an investment decision: The campaign is an investment in an intangible asset that will pay off in future sales and earnings.

**treasurer**
Responsible for financing, cash management, and relationships with banks and other financial institutions.

**controller**
Responsible for budgeting, accounting, and taxes.

**chief financial officer (CFO)**
Oversees the treasurer and controller and sets overall financial strategy.

Nevertheless, there are managers who specialize in finance, and their functions are summarized in Figure 1–2. The **treasurer** is most directly responsible for looking after the firm's cash, raising new capital, and maintaining relationships with banks and other investors who hold the firm's securities.

For small firms, the treasurer is likely to be the only financial executive. Larger corporations usually also have a **controller,** who prepares the financial statements, manages the firm's internal budgets and accounting, and looks after its tax affairs. You can see that the treasurer and controller have different roles: The treasurer's main function is to obtain and manage the firm's capital, whereas the controller ensures that the money is used efficiently.

Large corporations usually appoint a **chief financial officer (CFO)** to oversee both the treasurer's and the controller's work. The CFO is deeply involved in financial policymaking and corporate planning. He or she will have general responsibilities beyond strictly financial issues, and may join the company's board of directors.

Usually in a large corporation, a senior financial manager is responsible for organizing and supervising the capital budgeting process. However, major capital investment projects are so closely tied to plans for product development, production, and marketing that managers from these other areas are inevitably drawn into planning and analyzing the projects. If the firm has staff members specializing in corporate planning, they are naturally involved in capital budgeting too.

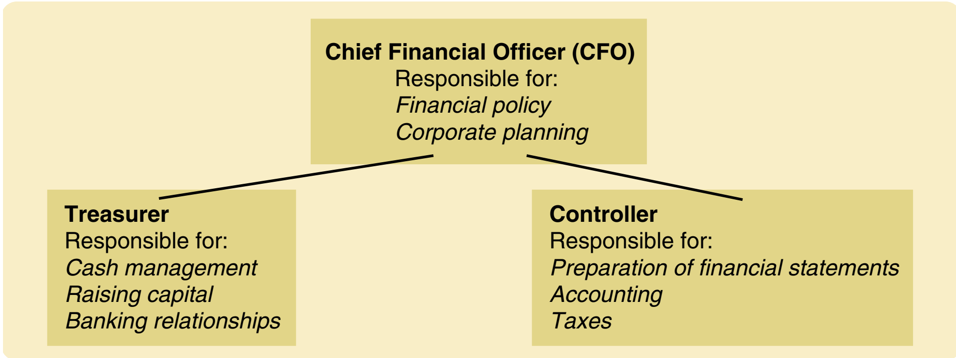
Because of the importance of many financial issues, ultimate decisions often rest by law or by custom with the board of directors. For example, only the board has the legal power to declare a dividend or to sanction a public issue of securities. Boards usually delegate decision-making authority for small- or medium-sized investment outlays, but the authority to approve large investments is almost never delegated.

*Self-Test 1.3*

**Fritz and Frieda went to business school together 10 years ago. They have just been hired by a midsized corporation that wants to bring in new financial managers. Fritz studied finance, with an emphasis on financial markets and institutions. Frieda majored in accounting and became a CPA 5 years ago. Who is more suited to be treasurer and who controller? Briefly explain.**

[4] The U.S. tax system is unusual in this respect. To avoid taxing the same income twice, most other countries give shareholders at least some credit for the taxes that the corporation has already paid.

**FIGURE 1–2** **Financial managers in large corporations**




## 1.4 Goals of the Corporation

### Shareholders Want Managers to Maximize Market Value

For small corporations, shareholders and management may be one and the same. But for large corporations, separation of ownership and management is a practical necessity. For example, Wal-Mart has about 330,000 shareholders. There is no way that these shareholders can be actively involved in management; it would be like trying to run New York City by town meetings. Authority has to be delegated.

How can shareholders decide how to delegate decision making when they all have different tastes, wealth, time horizons, and personal opportunities? Delegation can work only if the shareholders have a common objective. Fortunately there is a natural financial objective on which almost all shareholders can agree: maximize the current *market value* of shareholders' investment in the firm.

A smart and effective financial manager makes decisions that increase the current value of the company's shares and the wealth of its stockholders. That increased wealth can then be put to whatever purposes the shareholders want. They can give their money to charity or spend it in glitzy night clubs; they can save it or spend it now. Whatever their personal tastes or objectives, they can all do more when their shares are worth more.

Sometimes you hear managers speak as if the corporation has other goals. For example, they may say that their job is to "maximize profits." That sounds reasonable. After all, don't shareholders want their company to be profitable? But taken literally, profit maximization is not a well-defined corporate objective. Here are three reasons:

1. Maximize profits? Which year's profits? A corporation may be able to increase current profits by cutting back on outlays for maintenance or staff training, but that will not add value unless the outlays were wasteful in the first place. Shareholders will not welcome higher short-term profits if long-term profits are damaged.
2. A company may be able to increase future profits by cutting this year's dividend and investing the freed-up cash in the firm. That is not in the shareholders' best interest if the company earns only a very low rate of return on the extra investment.
3. Different accountants may calculate profits in different ways. So you may find that a decision that improves profits using one set of accounting rules may reduce them using another.

In a free economy a firm is unlikely to survive if it pursues goals that reduce the firm's value. Suppose, for example, that a firm's only goal is to increase its market share. It aggressively reduces prices to capture new customers, even when the price discounts cause continuing losses. What would happen to such a firm? As losses mount, it will find it more and more difficult to borrow money, and it may not even have sufficient profits to repay existing debts. Sooner or later, however, outside investors would see an opportunity for easy money. They could buy the firm from its current shareholders, toss out existing management, and increase the firm's value by changing its policies. They would profit by the difference between the price paid for the firm and the higher value it would have under new management. Managers who pursue goals that destroy value often land in early retirement.

The natural financial objective of the corporation is to maximize current market value. Managers who consistently ignore this objective are likely to be replaced.

## Ethics and Management Objectives

**Crime Does Not Pay** For a public company, maximizing current market value should also maximize today's stock price. (The firm's market value is the total amount that investors are willing to pay for all of its shares.) Does that objective justify pumping up the stock price by fraud or deception? Of course not. But there will be occasional bad apples in the barrel, companies that attempt to increase market value in unethical ways.

The years 2001 and 2002 revealed an unusual number of bad apples. For example, the telecom giant WorldCom admitted that it failed to report $3.8 billion of operating expenses. (The expenses were classified as investments, contrary to the rules of accounting.) Thus WorldCom's income was overstated by $3.8 million. In the meantime, WorldCom had run up $41 billion of debt. When the company's true profitability was discovered, it was bankrupt within a month—the largest U.S. bankruptcy ever.

The second-largest bankruptcy was Enron, the energy trading and investment company. In late 2001 it announced over $1.7 billion in losses that had previously been concealed in "special-purpose entities" (SPEs). We need not delve into SPEs here, except to say that they broke basic rules of accounting and that one of Enron's top financial executives allegedly used SPEs to pocket millions at the expense of Enron and its shareholders. The bad news came out all at once in October and November 2001, and Enron was bankrupt by year-end.

We suspect that WorldCom and Enron's accounting misdeeds were in part a desperate attempt to stave off bankruptcy. In the end these misdeeds were the proximate cause of bankruptcy. Crime, fraud, and deceit do not pay.

**The Ethics of Maximizing Value** Let us shift the focus back to the great majority of financial managers, who are honest and conscientious. Some idealists say that these managers should not be obliged to act in the selfish interests of their stockholders. Some realists argue that, regardless of what managers ought to do, they in fact look after themselves rather than their shareholders.

Let us respond to the idealists first. Does maximizing value mean that managers must act as greedy mercenaries riding roughshod over the weak and helpless? No, in most instances there is little conflict between doing well (maximizing value) and doing good.

The first step in doing well is doing good by your customers. Here is how Adam Smith put the case in 1776:

> It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.[5]

By striving to enrich themselves and their shareholders, businesspeople have to provide their customers with the products and services they truly desire.

Of course ethical issues do arise in business as in other walks of life. When the stakes are high, competition is intense, and a deadline is looming, it's easy for finan-

[5] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (New York: Random House, 1937; first published 1776), p. 14.

FINANCE IN PRACTICE

## The Stock Market Value of a Good Reputation

Are sound business ethics the sign of not only a morally good company but a good investment as well? Jim Huget, the president of Great Companies LLC, a money management firm based in Clearwater, Florida, argues that sticking with companies with sound ethical practices, including transparency, accountability, and a shareholder-friendly corporate governance structure, is a good way to avoid land mines in your portfolio.

The list of companies whose shares have been battered amid accusations of wrongdoing is a who's who of widely held stocks. Among the latest victims has been the insurance giant American International Group (AIG), whose stock has fallen 21 percent between January to April 2005. AIG is being investigated by regulators over transactions that may have masked the company's health. AIG's longtime chairman and chief executive, Maurice R. Greenberg, was forced to step down as a result of the controversy.

And it's not just AIG. The shares of Marsh & McLennan Companies were off 36 percent over the last 12 months; in late January, it agreed to settle a lawsuit by regulators accusing it of cheating customers by rigging prices and steering business to insurers in exchange for incentive payments.

But investors seem willing to give higher valuations to companies that are deemed good citizens. Put another way, investors give some companies with good track records the benefit of the doubt. That may explain in part why Warren Buffet's Berkshire Hathaway has lost only about 1 percent of its value this year. A Berkshire Hathaway subsidiary, General Re, was a party to a transaction that AIG said was accounted for improperly.

Berkshire "is a company with a culture of accountability, and that resonates with investors," said Gavin Anderson, chief executive of GovernanceMetrics International, a firm that grades corporations on governance practices.

*Source:* Adapted from Paul J. Lim, "Gauging That Other Company Asset: Its Reputation," *New York Times,* April 10, 2005, p. BU6.

cial managers to blunder, and not to inquire as deeply as they should about the legality or morality of their actions.

Written rules and laws can help only so much. In business, as in other day-to-day affairs, there are also unwritten rules of behavior. These work because everyone knows that such rules are in the general interest. But they are reinforced because good managers know that their firm's reputation is one of its most important assets and therefore playing fair and keeping one's word are simply good business practices. Thus huge financial deals are regularly completed on a handshake and each side knows that the other will not renege later if things turn sour. For example, the motto of the London Stock Exchange is "My word is my bond."

Reputation is particularly important in finance. If you buy a well-known brand in a store, you can be fairly sure what you are getting. But in financial transactions the other party often has more information than you and it is less easy to be sure of the quality of what you are buying. The reaction of honest financial firms is to build long-term relationships with their customers and establish a name for fair dealing and financial integrity. Major banks and securities firms protect their reputations by emphasizing their long history and their responsible behavior when seeking new customers. When something happens to undermine that reputation the costs can be enormous.

Take a look at the nearby box on the value to investors of a good corporate reputation. Note particularly the contrast between AIG and Berkshire Hathaway. General Re, a Berkshire Hathaway subsidiary, had sold AIG an insurance contract[6] that AIG accounted for improperly, apparently in an attempt to enhance the company's reported financial strength. The fear that AIG may have been "cooking its books" drove its share price down immediately. Investors shied away from AIG shares even at their new, "bargain" price. "We buy shares that are beat up, but not where we don't understand or trust the accounting," one investment manager said. "It's hard enough figuring out what a business will be in five years, and here you don't even know what it was five years ago."[7]

But Berkshire Hathaway's stock price was not much affected by the AIG controversy, even though its subsidiary General Re did many business deals with AIG.

[6] The details of this contract are not public information as we write this, but it seems that the insurance contract was not really insurance but a loan in disguise.

[7] Robert Olson, quoted in "AIG Investors Are Learning a Hard Lesson," *Wall Street Journal,* April 4, 2005, p. C1.

FINANCE IN PRACTICE

## Things Are Not Always Fair in Love or Economics

What constitutes fair behavior by companies? One survey asked a number of individuals to state whether they regarded a particular action as acceptable or unfair. Before we tell you how they responded, think how you would rate each of the following actions:

1a. A small photocopying shop has one employee who has worked in the shop for 6 months and earns $9 per hour. Business continues to be satisfactory, but a factory in the area has closed and unemployment has increased. Other small shops in the area have now hired reliable workers at $7 an hour to perform jobs similar to those done by the photocopying shop employee. The owner of the photocopying shop reduces the employee's wage to $7.

1b. Now suppose that the shop does not reduce the employee's wage but he or she leaves. The owner decides to pay a replacement $7 an hour.

2. A house painter employs two assistants and pays them $9 per hour. The painter decides to quit house painting and go into the business of providing landscape services, where the going wage is lower. He reduces the workers' wages to $7 per hour for the landscaping work.

3a. A small company employs several workers and has been paying them average wages. There is severe unemployment in the area and the company could easily replace its current employees with good workers at a lower wage. The company has been making money. The owners reduce the current workers' wages by 5 percent.

3b. Now suppose instead that the company has been losing money and the owners reduce wages by 5 percent.

4. A grocery store has several months' supply of peanut butter in stock on shelves in the storeroom. The owner hears that the wholesale price of peanut butter has increased and immediately raises the price on the current stock of peanut butter.

5. A hardware store has been selling snow shovels for $15. The morning after a large snowstorm, the store raises the price to $20.

6. A store has been sold out of the popular Beanie Baby dolls for a month. A week before Christmas a single doll is discovered in a storeroom. The managers know that many customers would like to buy the doll. They announce over the store's public address system that the doll will be sold by auction to the customer who offers to pay the most.

Now compare your responses with the responses of a random sample of individuals:

| | Percent Rating the Action As: | |
|---|---|---|
| **Action** | **Acceptable** | **Unfair** |
| 1a | 17 | 83 |
| 1b | 73 | 27 |
| 2 | 63 | 37 |
| 3a | 23 | 77 |
| 3b | 68 | 32 |
| 4 | 21 | 79 |
| 5 | 18 | 82 |
| 6 | 26 | 74 |

*Source:* Adapted from D. Kahneman, J. L. Knetsch, and R. Thaler, "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," *American Economic Review* 76 (September 1986), pp. 728–741. Reprinted by permission of American Economic Association and the authors.

Berkshire Hathaway's reputation for honesty and transparency has so far (as of April 2005) protected it from contamination from AIG's troubles.

It is not always easy to know what is ethical behavior and there can be many gray areas. For example, should the firm be prepared to do business with a corrupt or repressive government? Should it employ child labor in countries where that is the norm? Another nearby box presents several simple situations that call for an ethically based decision, along with survey responses to the proper course of action in each circumstance. Compare your decisions with those of the general public.

### Self-Test 1.4

**Without knowing anything about the personal ethics of the owners, which company would you better trust to keep its word in a business deal?**

**a. Harry's Hardware has been in business for 50 years. Harry's grandchildren, now almost adults, plan to take over and operate the business. Hardware stores require considerable investment in customer relations to become established.**

**b. Victor's Videos just opened for business. It rents a storefront in a strip mall and has financed its inventory with a bank loan. Victor has little of his own money invested in the business. Video shops usually command little customer loyalty.**

## Do Managers Really Maximize Value?

Owner-managers have no conflicts of interest in their management of the business. They work for themselves, reaping the rewards of good work and suffering the penalties of bad work. Their *personal* well-being is tied to the value of the firm.

In most large corporations the managers are not the owners, and so managers may be tempted to act in ways that are not in the best interests of shareholders. For example, they might buy luxurious corporate jets or overindulge in expense-account dinners. They might shy away from attractive but risky projects because they are worried more about the safety of their jobs than the potential for superior profits. They might engage in empire-building, adding unnecessary capacity or employees. Such problems can arise because the managers of the firm, who are hired as *agents* of the owners, may have their own axes to grind. Therefore they are called **agency problems.**

**agency problems** Managers, acting as agents for stockholders, may act in their own interests rather than maximizing value.

Think of the company's net revenue as a pie that is divided among a number of claimants. These include the management and the work force as well as the lenders and shareholders who put up the money to establish and maintain the business. The government is a claimant, too, since it gets to tax the profits of the enterprise. It is common to hear these claimants called **stakeholders** in the firm. Each has a stake in the firm. The stakeholders' interests may not coincide.

**stakeholder** Anyone with a financial interest in the firm.

All these stakeholders are bound together in a complex web of contracts and understandings. For example, when banks lend money to the firm, they insist on a formal contract stating the rate of interest and repayment dates, perhaps placing restrictions on dividends or additional borrowing. Similarly, large companies have carefully worked out personnel policies that establish employees' rights and responsibilities. But you can't devise written rules to cover every possible future event. So the written contracts are supplemented by understandings. For example, managers understand that in return for a fat salary they are expected to work hard and not spend the firm's money on unwarranted personal luxuries.

What enforces these understandings? Is it realistic to expect managers always to act on behalf of the shareholders? The shareholders can't spend their lives watching through binoculars to check that managers are not shirking or dissipating company funds on the latest executive jet.

A closer look reveals several arrangements that help to ensure that the shareholders and managers are working toward common goals.

**Compensation Plans** Managers are spurred on by incentive schemes that provide big returns if shareholders gain but are valueless if they do not. For example, when Michael Eisner was hired as chief executive officer (CEO) by the Walt Disney Company, his compensation package had three main components: a base annual salary of $750,000; an annual bonus of 2 percent of Disney's net income above a threshold of "normal" profitability; and a 10-year option that allowed him to purchase 2 million shares of stock for $14 per share, which was about the price of Disney stock at the time. Those options would be worthless if Disney's shares were selling for below $14 but highly valuable if the shares were worth more. This gave Eisner a huge personal stake in the success of the firm.

As it turned out, by the end of Eisner's 6-year contract the value of Disney shares had increased by $12 billion, more than sixfold. Eisner's compensation over the period was $190 million.[8] Was he overpaid? We don't know (and we suspect nobody else knows) how much Disney's success was due to Michael Eisner or how hard Eisner would have worked with a different compensation scheme. Our point is that managers often have a strong financial interest in increasing firm value.

But Michael Eisner also found out how much tough pressure investors can muster when they are disappointed. In early 2005, after several years of lagging performance

[8] This discussion is based on Stephen F. O'Byrne, "What Pay for Performance Looks Like: The Case of Michael Eisner," *Journal of Applied Corporate Finance* 5 (Summer 1992), pp. 135–136.

at Disney, Eisner was forced to resign. Eisner had been criticized for adding too many friends and associates to Disney's board of directors, but in the end the board did not protect him.

Well-designed compensation schemes encourage management to maximize shareholder wealth. But some schemes are not well designed and in these cases poorly performing managers may receive large windfall gains. For example, when the CEO of Mattel was ousted after a disastrous $3.6 billion acquisition, she received a farewell payoff of nearly $50 million. Needless to say, shareholders were not impressed by the board's generosity.

**The Board of Directors** Boards of directors are often portrayed as passive supporters of top management. But when performance starts to slide and managers don't offer a credible recovery plan, boards do act, as Michael Eisner discovered. The chief executives of Boeing, Fannie Mae,[9] Hewlett Packard, Morgan Stanley, and Eastman Kodak all have been forced out in recent years. Boards in Europe, which traditionally have been more management-friendly, have also become more willing to replace underperforming managers. The list of European departures includes senior management from Deutsche Telekom, Hollinger International, Shell, and Vivendi Universal.

If shareholders believe that the corporation is underperforming and that the board of directors is not sufficiently aggressive in holding the managers to task, they can try to replace the board in the next election. The dissident shareholders will attempt to convince other shareholders to vote for their slate of candidates to the board. If they succeed, a new board will be elected and it can replace the current management team.

**Takeovers** Poorly performing companies are also more likely to be taken over by another firm. After the takeover, the old management team may find itself out on the street. We discuss takeovers in Chapter 21.

**Specialist Monitoring** Managers are subject to the scrutiny of specialists. Their actions are monitored by the security analysts who advise investors to buy, hold, or sell the company's shares. They are also reviewed by banks, which keep an eagle eye on the progress of firms receiving their loans.

**Legal and Regulatory Requirements** CEOs and financial managers have a legal duty to act responsibly and in the interests of investors. For example, the Securities and Exchange Commission (SEC) sets accounting and reporting standards for public companies in order to ensure consistency and transparency. The SEC also prohibits insider trading, that is, the purchase or sale of shares based on information that is not available to public investors. In 2002, in response to Enron, WorldCom, and other debacles of the late 1900s and early 2000s, Congress passed the Sarbanes-Oxley law, which imposed tight new restrictions on corporate financial management. For example, Sarbanes-Oxley requires corporations to have more independent directors on the board, that is, more directors who are not managers or affiliated with managers. Also, Sarbanes-Oxley requires each CFO to sign off personally on the corporation's accounting procedures and results.

We do not want to leave the impression that corporate life is a series of squabbles and endless micromanagement. It isn't, because practical corporate finance has evolved to reconcile personal and corporate interests—to keep everyone working together to increase the value of the whole pie, not merely the size of each person's slice.

Agency problems are mitigated in practice in several ways: legal and regulatory standards; compensation plans that tie the fortunes of the managers to the fortunes of the firm; monitoring by lenders, stock market analysts, and investors; and ultimately the threat that poorly performing managers will be fired.

[9] The Federal National Mortgage Association (FNMA).

We have covered several types of constraints and incentives designed to mitigate agency costs and ensure cooperative and ethical behavior. All these mechanisms help ensure effective *corporate governance.* When scandals happen, we say that corporate governance has broken down. When corporations compete effectively and ethically and deliver value to shareholders, we are comforted that corporate governance is working properly.

*Self-Test 1.5*

**What is an agency problem? Give two or three examples of decisions by managers that lead to agency costs.**

## 1.5 Careers in Finance

Well over 1 million people work in the financial services industry in the United States, and many others work as financial managers in corporations. We can't tell you what each one does all day, but we can give you some idea of the variety of careers in finance. The nearby box summarizes the experience of a small sample of recent graduates.[10]

We explained earlier that corporations face two principal financial decisions: the investment decision and the financing decision. Therefore, as a newly recruited financial analyst, you may help to analyze a major new investment project. Or you may instead help to raise the money to pay for it, perhaps by negotiating a bank loan or by arranging to lease the plant and equipment. Other financial analysts work on short-term finance, managing collection and investment of the company's cash or checking whether customers are likely to pay their bills. Financial analysts are also involved in monitoring and controlling risk. For example, they may help to arrange insurance for the firm's plant and equipment, or they may assist with the purchase and sale of options, futures, and other exotic tools for managing risk.

Instead of working in the finance department of a corporation, you may join a financial institution. The largest employers are banks. Banks collect deposits and relend the cash to corporations and individuals. If you join a bank, you may start in a branch office, where individuals and small businesses come to deposit cash or to seek a loan. You could also work in the head office, helping to analyze a $500 million loan to a large corporation.

Banks do many things in addition to lending money, and they probably provide a greater variety of jobs than other financial institutions. For example, individuals and businesses use banks to make payments to each other. So if you work in the cash management department of a large bank, you may help companies electronically transfer huge sums of money as wages, taxes, and payments to suppliers. Banks also buy and sell foreign exchange, so you could find yourself working in front of one of those computer screens in a foreign exchange dealing room. Another glamorous bank job is in the derivatives group, which helps companies to manage their risk by buying and selling options, futures, and so on. This is where the mathematicians and the computer buffs thrive.

Investment banks, such as Merrill Lynch or Goldman Sachs, help companies sell their securities to investors. They also have large corporate finance departments which assist firms in mergers and acquisitions. When firms issue securities or try to take over another firm, a lot of money is at stake and the firms may need to move fast. Thus, working for an investment bank can be a high-pressure activity with long hours. It can also pay very well.

The insurance industry is another large employer. Much of the insurance industry is involved in designing and selling insurance policies on people's lives and property,

[10] The careers are fictitious but based on the actual experiences of several of the authors' students.

FINANCE IN PRACTICE

## Working in Finance

**Susan Webb, Research Analyst, Mutual Fund Group**
After majoring in biochemistry, I joined the research department of a large mutual fund group. Because of my background, I was assigned to work with the senior pharmaceuticals analyst. I start the day by reading The *Wall Street Journal* and reviewing the analyses that come in each day from stockbroking firms. Sometimes we need to revise our earnings forecasts and meet with the portfolio managers to discuss possible trades. The remainder of my day is spent mainly in analyzing companies and developing forecasts of revenues and earnings. I meet frequently with pharmaceutical analysts in stockbroking firms and we regularly visit company management. In the evenings I study for the Chartered Financial Analyst (CFA) exam. Since I did not study finance at college, this is quite challenging. I hope eventually to move from a research role to become a portfolio manager.

**Richard Gradley, Project Finance, Large Energy Company**
After leaving college, I joined the finance department of a large energy company. I spent my first year helping to analyze capital investment proposals. I then moved to the project finance group, which is responsible for analyzing independent power projects around the world. Recently, I have been involved in a proposal to set up a company that would build and operate a large new electricity plant in southeast Asia. We built a spreadsheet model of the project to make sure that it was viable. We had to check that the contracts with the builders, operators, suppliers, and so on, were all in place before we could arrange bank finance for the project.

**Albert Rodriguez, Emerging Markets Group, Major New York Bank**
I joined the bank after majoring in finance. I spent the first 6 months in the bank's training program, rotating between departments. I was assigned to the Latin America team just before the 1998 Brazilian crisis when interest rates jumped to nearly 50 percent and the currency fell by 40 percent. There was a lot of activity, with everyone trying to figure out what was likely to happen next and how it would affect our business. My job is largely concerned with analyzing economies and assessing the prospects for bank business. There are plenty of opportunities to work abroad and I hope to spend some time in one of our Latin American offices, such as Argentina or Brazil.

**Sherry Solera, Branch Manager, Regional Bank**
I took basic finance courses in college, but nothing specific for banking. I started here as a teller. I was able to learn about banking through the bank's training program, and also by evening courses at a local college. Last year I was promoted to branch manager. I oversee the branch's operations and help customers with a wide variety of problems. I'm also spending more time on credit analysis of business loan applications. I want to expand the branch's business customers, but not by making loans to shaky companies.

but businesses are also major customers. So if you work for an insurance company or a large insurance broker, you could find yourself arranging insurance on a Boeing 787 in the United States or an oil rig in Indonesia.

Life insurance companies are major lenders to corporations and to investors in commercial real estate. (Life insurance companies deploy the insurance premiums received from policyholders into medium- or long-term loans; banks specialize in shorter-term financing.) So you could end up negotiating a $50 million loan for construction of a new shopping center or investigating the creditworthiness of a family-owned manufacturing company that has applied for a loan to expand production.

Then there is the business of "managing money," that is, deciding which companies' shares to invest in, or how to balance investment in shares with safer securities, such as the bonds (debt securities) issued by the U.S. Treasury. Take mutual funds, for example. A mutual fund collects money from individuals and invests in a portfolio of stocks or bonds. A financial analyst in a mutual fund analyzes the prospects for the securities and works with the investment manager to decide which should be bought and sold. Many other financial institutions also contain investment management departments. For example, you might work as a financial analyst in the investment department of an insurance company. (Insurance companies also invest in traded securities.) Or you could be a financial analyst in the trust department of a bank that manages money for retirement funds, universities, and charities.

Stockbroking firms help investment management companies and private individuals to invest in securities. They employ sales staff and dealers who make the trades. They also employ financial analysts to analyze the securities and help customers to decide which to buy or sell. Many stockbroking firms are owned by investment banks, such as Merrill Lynch.

INTERNET INSIDER

## Careers in Finance


If you would like to learn about careers in finance, log on to **www.careers-in-finance.com**. This site describes jobs in commercial banking, corporate finance, financial planning, insurance, investment banking, money management, and real estate. For each area the site describes the types of jobs available, the skills and talents needed, salary ranges, and so on.

Corporate finance is the focus of this text, so we suggest you start there. Which jobs in corporate finance do you think would best suit you? Now compare the skills needed for these jobs. How do you match up? How will you match up when your education is completed?

The Web site also provides links to the job pages of major financial institutions. Log on to some of these sites and compare their descriptions of the different functions. Are these descriptions consistent with those in careers-in-finance.com?

We have listed several other useful job Web sites at the beginning of this chapter.

Investment banks and stockbroking firms are largely headquartered in New York, as are many of the large commercial banks. Insurance companies and investment management companies tend to be more scattered. For example, some of the largest insurance companies are headquartered in Hartford, Connecticut, and many investment management companies are located in Boston. Of course, some U.S. financial institutions have large businesses outside the United States. Finance is a global business. So you may spend some time working in a branch overseas or making the occasional trip to one of the other major financial centers, such as London, Tokyo, Hong Kong, or Singapore.

Finance professionals tend to be well paid. Starting salaries for new graduates are in the region of $30,000, rather more in a major New York investment bank and somewhat less in a small regional bank. But let us look ahead a little: Table 1–2 gives you an idea of the compensation that you can look forward to when you become a senior financial manager (but don't assume that even department heads of large investment

**TABLE 1–2** Representative salaries for jobs in finance

| Career | Annual Salary |
|---|---|
| **Commercial Banking** | |
| Loan Officer | $60,000 |
| Department Manager | $100,000 |
| **Corporate Finance** | |
| Financial Analyst | $38–47,000 |
| Credit Manager | $30–63,000 |
| Chief Financial Officer | $232–295,000 |
| **Investment Banking (bulge bracket)** | |
| First-Year Analyst | $60–110,000 |
| First-Year Associate | $125–235,000 |
| Assistant Vice President | $200–600,000 |
| Director/Principal | $300K–1.2 million |
| Managing Director/Partner | $400K–20 million |
| Department Head | $750K–70 million |
| **Money Management** | |
| Portfolio Manager | $500,000+ |
| Bank Trust Department | $100,000 |

*Source:* **www.careers-in-business.com.**
*Note:* Bulge bracket refers to a few of the largest investment banks.

FINANCE IN PRACTICE

## Finance through the Ages

**Date unknown** ***Compound Growth.*** Bacteria start to propagate by subdividing. They thereby demonstrate the power of compound growth. *(Chapter 4)*

**c. 1800 B.C.** ***Interest Rates.*** In Babylonia Hammurabi's Code established maximum interest rates on loans. Borrowers often mortgaged their property and sometimes their spouses but in these cases the lender was obliged to return the spouse in good condition within 3 years. *(Chapter 5)*

**c. 1000 B.C.** ***Options.*** One of the earliest recorded options is described by Aristotle. The philosopher Thales knew by the stars that there would be a great olive harvest, so, having a little money, he bought options for the use of olive presses. When the harvest came Thales was able to rent the presses at great profit. Today financial managers need to be able to evaluate options to buy or sell a wide variety of assets. *(Chapter 23)*

**15th century** ***International Banking.*** Modern international banking has its origins in the great Florentine banking houses. But the entire European network of the Medici empire employed only 57 people in eight offices. Today the London-based bank HSBC has more than 250,000 employees in 77 different countries. *(Chapter 13)*

**1650** ***Futures.*** Futures markets allow companies to protect themselves against fluctuations in commodity prices. During the Tokugawa era in Japan feudal lords collected rents in the form of rice but often they wished to trade their future rice deliveries. Rice futures therefore came to be traded on what was later known as the Dojima Rice Market. Rice futures are still traded but now companies can also trade in futures on a range of items from pork bellies to stock market indexes. *(Chapter 24)*

**17th century** ***Joint Stock Corporations.*** Although investors have for a long time combined together as joint owners of an enterprise, the modern corporation with a large number of stockholders originates with the formation in England of the great trading firms like the East India Company (est. 1599). *(Chapter 14)*

**17th century** ***Money.*** America has been in the forefront in the development of new types of money. Early settlers often used a shell known as wampum. For example, Peter Stuyvesant raised a loan in wampum and in Massachusetts it was legal tender. Unfortunately, the enterprising settlers found that with a little dye the relatively common white wampum shells could be converted profitably into the more valuable black ones, which confirmed Gresham's law that bad money drives out good. The first issue of paper money in America (and almost in the world) was by the Massachusetts Bay Colony in 1690, and other colonies soon set their printing presses to producing money. In 1862 Congress agreed to an issue of paper money which would be legal tender. These notes, printed in green ink, immediately became known as "greenbacks." *(Chapters 19, 20)*

**1720** ***New Issue Speculation.*** From time to time investors have been tempted by speculative new issues. During the South Sea Bubble in England one company was launched to develop perpetual motion. Another enterprising individual announced a company "for carrying on an undertaking of great advantage but nobody to know what it is." Within 5 hours he had raised £2000; within 6 hours he was on his way out of the country. Readers nearly two centuries later could only wonder at the naïve or foolhardy investors in these ventures—that is, until they had a chance to participate in the dot.com meltdown of 1999–2002. *(Chapter 14)*

**1792** ***Formation of the New York Stock Exchange.*** The New York Stock Exchange (NYSE) was founded in 1792 when a group of brokers met under a buttonwood tree and arranged to trade shares with one another at agreed rates of commission. Today the NYSE is the largest stock exchange in the world, trading on average about a billion shares a day. (Chapter 6)

**1929** ***Stock Market Crashes.*** Common stocks are risky investments. In September 1929 stock prices in the United States reached an all-time high and the economist Irving Fisher forecast that they were at "a permanently high plateau." Some 3 years later stock prices were almost 90 percent lower and it was to be a quarter of a century before the prices of September 1929 were seen again. Contrary to popular impression, no Wall Street broker jumped out the window. *(Chapter 10)*

**1960s** ***Eurodollar Market.*** In the 1950s the Soviet Union transferred its dollar holdings from the United States to a

banking firms typically earn $70 million). The Internet Insider box for this chapter directs you to some Internet sites that provide useful information about careers in finance.

## 1.6 Topics Covered in This Book

This book covers investment decisions, then financing decisions, and then a variety of planning issues that require an understanding of both investment and financing. But first there are two further introductory chapters that should be helpful to readers making a first acquaintance with financial management. Chapter 2 is an overview of financial markets and institutions. Chapter 3 reviews the basic concepts of accounting.

In Parts 2 and 3 we look at different aspects of the investment decision. The first is the problem of how to value assets, and the second is the link between risk and value. Our discussion of these topics occupies Chapters 4 through 12.

Russian-owned bank in Paris. This bank was best known by its telex address, EUROBANK, and consequently dollars held outside the United States came to be known as eurodollars. In the 1960s U.S. taxes and regulation made it much cheaper to borrow and lend dollars in Europe rather than in the United States, and a huge market in eurodollars arose. *(Chapter 13)*

**1971** ***Corporate Bankruptcies.*** Every generation of investors is shocked and surprised by a major corporate bankruptcy. In 1971 the Penn Central Railroad, a pillar of American industry, suddenly collapsed. Penn Central showed assets of $4.6 billion, about $21 billion in today's dollars. At that time it was the largest corporate bankruptcy in history. Enron and WorldCom have since broken Penn Central's record. *(Chapter 15)*

**1972** ***Financial Futures.*** Financial futures allow companies to protect themselves against fluctuations in interest rates, exchange rates, and so on. It is said that they originated from a remark by the economist Milton Friedman that he was unable to profit from his view that sterling (the U.K. currency) was overpriced. The Chicago Mercantile Exchange founded the first financial futures market. Today futures exchanges in the United States trade 1.4 billion contracts a year of financial futures. *(Chapter 24)*

**1986** ***Capital Investment Decisions.*** The largest investment project undertaken by a private company was the construction of the tunnel under the English Channel. This started in 1986 and was completed in 1994 at a total cost of $15 billion. *(Chapters 7, 8)*

**1988** ***Mergers.*** The 1980s saw a wave of takeovers culminating in the $25 billion takeover of RJR Nabisco. Over a period of 6 weeks three groups battled for control of the company. As one of the contestants put it, "We were charging through the rice paddies, not stopping for anything and taking no prisoners." The takeover was the largest in history and generated almost $1 billion in fees for the banks and advisers. *(Chapter 21)*

**1993** ***Inflation.*** Financial managers need to recognize the effect of inflation on interest rates and on the profitability of the firm's investments. In the United States inflation has been relatively modest, but some countries have suffered from hyperinflation. In Hungary after World War II the government issued banknotes worth 1,000 trillion pengoes. In Yugoslavia in October 1993 prices rose by nearly 2,000 percent and a dollar bought 105 million dinars. *(Chapter 4)*

**1780 and 1997** ***Inflation-Indexed Debt.*** In 1780, Massachusetts paid Revolutionary War soldiers with interest-bearing notes rather than its rapidly eroding currency. Interest and principal payments on the notes were tied to the rate of subsequent inflation. After a 217-year hiatus, the United States Treasury issued 10-year inflation-indexed notes. Many other countries, including Britain and Israel, had done so previously. *(Chapter 5)*

**1993** ***Controlling Risk.*** When a company fails to keep close tabs on the risks being taken by its employees, it can get into serious trouble. This was the fate of Barings, a 220-year-old British bank that numbered the queen among its clients. In 1993 it discovered that Nick Leeson, a trader in its Singapore office, had hidden losses of $1.3 billion (£869 million) from unauthorized bets on the Japanese equity market. The losses wiped out Barings and landed Leeson in jail, with a 6-year sentence. *(Chapter 24)*

**1999** ***The Euro.*** Large corporations do business in many currencies. In 1999 a new currency came into existence, when 11 European countries adopted the euro in place of their separate currencies. This was not the first time that different countries have agreed on a common currency. In 1865 France, Belgium, Switzerland, and Italy came together in the Latin Monetary Union, and they were joined by Greece and Romania the following year. Members of the European Monetary Union (EMU) hope that the euro will be a longer-lasting success than earlier experiments. *(Chapter 23)*

**2002** ***Financial Scandals.*** A seemingly endless series of financial and accounting scandals climaxed in this year. Resulting bankruptcies included the icons Enron (and its accounting firm, Arthur Andersen), WorldCom, and the Italian food company Parmalat. Congress passed the Sarbanes-Oxley Act to increase the accountability of corporations and executives. *(Chapters 1, 13)*

Nine chapters devoted to the simple problem of finding real assets that are worth more than they cost may seem excessive, but that problem is not so simple in practice. We will require a theory of how long-lived, risky assets are valued, and that requirement will lead us to basic questions about financial markets. For example:

- How are corporate bonds and stocks valued in capital markets?
- What risks are borne by investors in corporate securities? How can these risks be measured?
- What compensation do investors demand for bearing risk?
- What rate of return can investors in common stocks reasonably expect to receive?
- Do stock prices accurately reflect the underlying value of the firm?

Intelligent capital budgeting and financing decisions require answers to these and other questions about how capital markets work.

Financing decisions occupy Parts 4 and 5. The two chapters in Part 4 describe the kinds of securities corporations use to raise money and explain how and when these securities are issued. Part 5 covers debt policy and dividend policy. We will also describe what happens when firms find themselves in financial distress because of poor operating performance, excessive borrowing, or both.

Part 6 covers financial analysis and planning. We start with the techniques of financial statement analysis, that is, the assessment of a company's financial condition and prospects from analysis of the company's financial reports. Then we cover long- and short-term financial planning and the management of working capital. *Working capital* refers to short-term assets, including cash, inventories, and money due from customers, net of short-term liabilities, such as the money that the firm has promised to pay to suppliers, banks, or other short-term lenders.

Part 7 covers three important problems that require decisions about both investment and financing. First we look at mergers and acquisitions. Then we consider international financial management. All the financial problems of doing business at home are present overseas, but the international financial manager faces the additional complications created by multiple currencies, different tax systems, and special regulations imposed by foreign institutions and governments. Finally, we look at risk management and the specialized securities, including futures and options, that managers can use to hedge or lay off risks.

Part 8 is our conclusion. It also discusses some of the things that we don't know about finance. If you can be the first to solve any of these puzzles, you will be justifiably famous.

### Snippets of History

Now let's lighten up a little. In this book we are going to describe how financial decisions are made today. But financial markets also have an interesting history. Look at the nearby box, which lays out bits of this history, starting in prehistoric times, when the growth of bacteria anticipated the mathematics of compound interest, and continuing nearly to the present. We have keyed each of these episodes to the chapter of the book that discusses its topic.

## SUMMARY

**What are the two major decisions made by financial managers?**

Financial management can be broken down into (1) the investment, or capital budgeting, decision and (2) the financing decision. The firm has to decide (1) how much to invest and which real assets to invest in and (2) how to raise the necessary cash.

**What does "real asset" mean?**

Real assets include all assets used in the production or sale of the firms' products or services. Real assets can be tangible (plant and equipment, for example) or intangible (patents or trademarks, for example).

**Who is the financial manager?**

Almost all managers are involved to some degree in investment decisions, but some managers specialize in finance, for example, the treasurer, controller, and CFO.

**Why does it make sense for corporations to maximize their market value?**

Value maximization is the natural financial goal of the firm. Maximizing value maximizes the wealth of the firm's owners, its shareholders. Shareholders can invest or consume that wealth as they wish.

**Is value maximization ethical?**

Modern finance does not condone attempts to pump up stock price by unethical means. But there need be no conflict between ethics and value maximization. The surest route to maximum value starts with products and services that satisfy customers. A good reputation with customers, employees, and other stakeholders is also important for the firms' long-run profitability and value.

**How do corporations ensure that managers' and stockholders' interests coincide?**

Conflicts of interest between managers and stockholders can lead to agency problems. These problems are kept in check by compensation plans that link the well-being of employees to that of the firm; by monitoring of management by the board of directors, security analysts, and creditors; and by the threat of takeover.

## QUIZ™

1. **Financial Decisions.** Give several examples of (a) investment decisions and (b) financing decisions.
2. **Corporations.** What are the key differences between a corporation and a sole proprietorship? What is the difference between a public and a private corporation?
3. **Corporations.** What is the key advantage of separating ownership and management in large corporations?
4. **Limited Liability.** What is limited liability, and who benefits from it?
5. **Corporations.** What do we mean when we say that corporate income is subject to *double taxation?*
6. **Real versus Financial Assets.** Which of the following are real assets, and which are financial?
   a. A share of stock.
   b. A personal IOU.
   c. A trademark.
   d. A truck.
   e. Undeveloped land.
   f. The balance in the firm's checking account.
   g. An experienced and hardworking sales force.
   h. A bank loan agreement.
7. **Financial Managers.** Which of the following statements more accurately describes the treasurer than the controller?
   a. Likely to be the only financial executive in small firms.
   b. Monitors capital expenditures to make sure that they are not misappropriated.
   c. Responsible for investing the firm's spare cash.
   d. Responsible for arranging any issue of common stock.
   e. Responsible for the company's tax affairs.
8. **Value Maximization.** Give an example of an action that might increase short-run profits but at the same time reduce stock price and the market value of the firm.
9. **Agency Costs.** What are agency costs? List some ways by which agency costs are mitigated.

## PRACTICE PROBLEMS™

10. **The Financial Manager.** Give two examples of capital budgeting decisions and financing decisions.
11. **Financial Decisions.** What is the difference between capital budgeting decisions and capital structure decisions?
12. **Financial Assets.** Why is a bank loan a financial asset?
13. **Real Assets.** Explain how investment in an R&D program creates a real asset.
14. **Financial Managers.** Explain the differences between the CFO's responsibilities and the treasurer's and controller's responsibilities.

15. **Limited Liability.** Is limited liability always an advantage for a corporation and its shareholders? *Hint:* Could limited liability reduce a corporation's access to financing?
16. **Goals of the Firm.** You may have heard big business criticized for focusing on short-term performance at the expense of long-term results. Explain why a firm that strives to maximize stock price should be *less* subject to an overemphasis on short-term results than one that simply maximizes profits.
17. **Goals of the Firm.** We claim that the goal of the firm is to maximize current market value. Could the following actions be consistent with that goal?
    a. The firm adds a cost-of-living adjustment to the pensions of its retired employees.
    b. The firm reduces its dividend payment, choosing to reinvest more of earnings in the business.
    c. The firm buys a corporate jet for its executives.
    d. The firm drills for oil in a remote jungle. The chance of finding oil is only 1 in 5.
18. **Goals of the Firm.** Explain why each of the following may not be appropriate corporate goals:
    a. Increase market share.
    b. Minimize costs.
    c. Underprice any competitors.
    d. Expand profits.
19. **Agency Issues.** Sometimes lawyers work on a contingency basis. They collect a percentage of their clients' settlements instead of receiving fixed fees. Why might clients prefer this arrangement? Would the arrangement mitigate an agency problem?
20. **Reputation.** As you drive down a deserted highway you are overcome with a sudden desire for a hamburger. Fortunately, just ahead are two hamburger outlets; one is owned by a national brand, the other appears to be owned by "Joe." Which outlet has the greater incentive to serve you catmeat? Why?
21. **Agency Issues.** One of the "Finance through the Ages" episodes that we cited is the 1993 collapse of Barings Bank, when one of its traders lost $1.3 billion. Traders are compensated in large part according to their trading profits. How might this practice have contributed to an agency problem?
22. **Agency Issues.** Discuss which of the following forms of compensation is most likely to align the interests of managers and shareholders:
    a. A fixed salary.
    b. A salary linked to company profits.
    c. A salary that is paid partly in the form of the company's shares.
23. **Agency Issues.** When a company's stock is widely held, it may not pay an individual shareholder to spend time monitoring managers' performance and trying to replace poor performers. Explain why. Do you think that a bank that has made a large loan to the company is in a different position?
24. **Corporate Governance.** How do clear and comprehensive financial reports promote effective corporate governance?
25. **Corporate Governance.** Some commentators have claimed that the U.S. system of corporate governance is "broken" and needs thorough reform. What do you think? Do you see systematic failures in corporate governance or just a few "bad apples" like Enron and WorldCom?
26. **Ethics.** In some countries, such as Japan and Germany, corporations develop close long-term relationships with one bank and rely on that bank for a large part of their financing needs. In the United States companies are more likely to shop around for the best deal. Do you think that this practice is more or less likely to encourage ethical behavior on the part of the corporation?
27. **Ethics.** Is there a conflict between "doing well" and "doing good"? In other words, are policies that increase the value of the firm (doing well) necessarily at odds with socially responsible policies (doing good)? When there are conflicts, how might government regulations or laws tilt the firm toward doing good? For example, how do taxes or fees charged on pollutants affect the firm's decision to pollute? Can you cite other examples of "incentives" used by governments to align private interests with public ones?

28. **Ethics.** The following report appeared in the *Financial Times* (October 28, 1999, p. 1): "Coca-Cola is testing a vending machine that automatically raises the price of the world's favorite soft drink when the temperature increases . . . [T]he new machine, believed to have been tested in Japan, may well create controversy by using hot weather to charge extra. One rival said the idea of charging more when temperatures rose was 'incredible.'" Discuss.

1. This text provides you with access to a very powerful database of company information, called Standard & Poor's Market Insight. You have access via the following link (a password is provided in your book cover) to 6 years of data for 1,000 companies. The site provides 14 different Excel Analytics Reports including financial statements, ratios (6 years of ratios, actual and charted, with comparisons to the firm's industry), stock performance reports, and much more. Industry information (companies and profile) and company business activity are also reported.

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The *Company Profile* contains recent market valuation information and a link to the company's Web site. *Financial Highlights* provides current-quarter information on sales, market data, ratios, etc. Click the linked terms, for example, *Employees,* and you will be provided a definition of the term, a very useful feature when getting started.

## SOLUTIONS TO SELF-TEST QUESTIONS

1.1
- a. The development of a microprocessor is a capital budgeting decision. The investment of $1 billion will purchase a real asset, the microprocessor design and production facilities.
- b. The bank loan is a financing decision. This is how Volkswagen will raise money for its investment.
- c. Capital budgeting.
- d. Capital budgeting. The marketing campaign should generate a real, though intangible, asset.
- e. Both. The acquisition is an investment decision. The decision to issue shares is a financing decision.

1.2
- a. A real asset. Real assets can be intangible assets.
- b. Financial.
- c. Real.
- d. Financial.
- e. Real.
- f. Financial.

1.3 Fritz would more likely be the treasurer and Frieda the controller. The treasurer raises money from the financial markets and requires a background in financial institutions. The controller requires a background in accounting.

1.4 Harry's has a far bigger stake in the reputation of the business than Victor's. The store has been in business for a long time. The owners have spent years establishing customer loyalty. In contrast, Victor's has just been established. The owner has little of his own money tied up in the firm, and so has little to lose if the business fails. In addition, the nature of the business results in little customer loyalty. Harry's is probably more reliable.

1.5 Agency problems arise when managers and shareholders have different objectives. Managers may empire-build with excessive investment and growth. Managers may be unduly risk-averse, or they may try to take excessive salaries or perquisites.