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To engage in business the financial managers of a firm must find answers to three kinds of important questions. First, what long-term investments should the firm take on? This is the capital budgeting decision. Second, how can cash be raised for the required investments? We call this the financing decision. Third, how will the firm manage its day-to-day cash and financial affairs? These decisions involve short-term finance and concern net working capital.

In Chapter 1 we discuss these important questions, briefly introducing the basic ideas of this book and describing the nature of the modern corporation and why it has emerged as the leading form of the business firm. Using the set-of-contracts perspective, the chapter discusses the goals of the modern corporation. Though the goals of shareholders and managers may not always be the same, conflicts usually will be resolved in favor of the shareholders. Finally, the chapter reviews some of the salient features of modern financial markets. This preliminary material will be familiar to students who have some background in accounting, finance, and economics.

Chapter 2 examines the basic accounting statements. It is review material for students with an accounting background. We describe the balance sheet and the income statement. The point of the chapter is to show the ways of converting data from accounting statements into cash flow. Understanding how to identify cash flow from accounting statements is especially important for later chapters on capital budgeting.

Chapter 3 examines the basic elements of financial planning and introduces the concept of sustainable growth. Sustainable growth is a useful organizing framework when working with financial statements.

Chapter 1

Introduction to Corporate Finance

EXECUTIVE SUMMARY

The Video Product Company designs and manufactures very popular software for video game consoles. The company was started in 2002, and soon thereafter its game "Gadfly" appeared on the cover of *Billboard* magazine. Company sales in 2003 were over $20 million. Video Product's initial financing of $2 million came from Seed Ltd., a venture-capital firm, in exchange for a 15-percent equity stake in the company. Now the financial management of Video Product realizes that its initial financing was too small. In the long run Video Product would like to expand its design activity to the education and business areas. It would also like to significantly enhance its website for future Internet sales. However, at present the company has a short-run cash flow problem and cannot even buy $200,000 of materials to fill its holiday orders.

Video Product's experience illustrates the basic concerns of corporate finance:

1. What long-term investment strategy should a company take on?
2. How can cash be raised for the required investments?
3. How much short-term cash flow does a company need to pay its bills?

These are not the only questions of corporate finance. They are, however, among the most important questions, and taken in order, they provide a rough outline of our book.

One way that companies raise cash to finance their investment activities is by selling or "issuing" securities. The securities, sometimes called *financial instruments* or *claims*, may be roughly classified as *equity* or *debt*, loosely called *stocks* or *bonds*. The difference between equity and debt is a basic distinction in the modern theory of finance. All securities of a firm are claims that depend on or are contingent on the value of the firm.[1] In Section 1.2 we show how debt and equity securities depend on the firm's value, and we describe them as different contingent claims.

In Section 1.3 we discuss different organizational forms and the pros and cons of the decision to become a corporation.

In Section 1.4 we take a close look at the goals of the corporation and discuss why maximizing shareholder wealth is likely to be the primary goal of the corporation. Throughout the rest of the book, we assume that the firm's performance depends on the value it creates for its shareholders. Shareholders are better off when the value of their shares is increased by the firm's decisions.

A company raises cash by issuing securities to the financial markets. The market value of outstanding long-term corporate debt and equity securities traded in the U.S. financial markets is in excess of $25 trillion. In Section 1.5 we describe some of the basic features of the financial markets. Roughly speaking, there are two basic types of financial markets: the money markets and the capital markets. The last section of the chapter provides an outline of the rest of the book.

[1] We tend to use the words *firm*, *company*, and *business* interchangeably. However, there is a difference between a firm and a corporation. We discuss this difference in Section 1.3.

1.1 What Is Corporate Finance?

Suppose you decide to start a firm to make tennis balls. To do this, you hire managers to buy raw materials, and you assemble a workforce that will produce and sell finished tennis balls. In the language of finance, you make an investment in assets such as inventory, machinery, land, and labor. The amount of cash you invest in assets must be matched by an equal amount of cash raised by financing. When you begin to sell tennis balls, your firm will generate cash. This is the basis of value creation. The purpose of the firm is to create value for you, the owner. The firm must generate more cash flow than it uses. The value is reflected in the framework of the simple balance-sheet model of the firm.

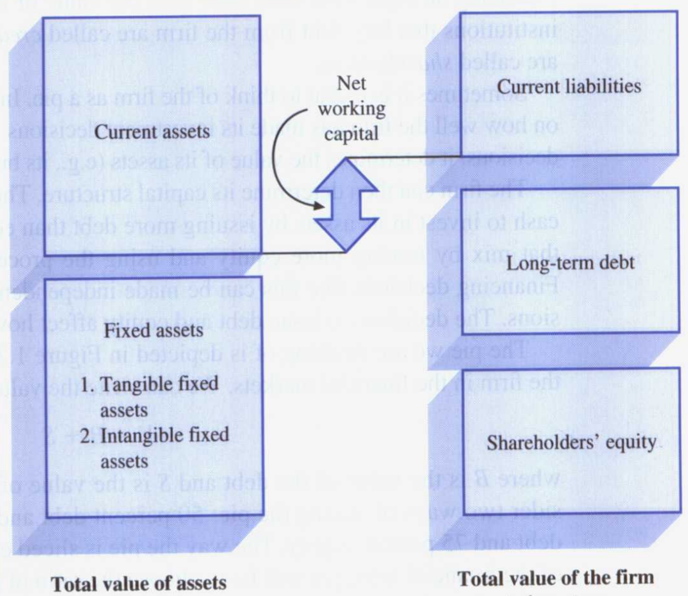
The Balance-Sheet Model of the Firm

Suppose we take a financial snapshot of the firm and its activities at a single point in time. Figure 1.1 shows a graphic conceptualization of the balance sheet, and it will help introduce you to corporate finance.

The assets of the firm are on the left-hand side of the balance sheet. These assets can be thought of as current and fixed. *Fixed assets* are those that will last a long time, such as buildings. Some fixed assets are tangible, such as machinery and equipment. Other fixed assets are intangible, such as patents, trademarks, and the quality of management. The other category of assets, *current assets,* comprises those that have short lives, such as inventory. The tennis balls that your firm has made but has not yet sold are part of its inventory. Unless you have overproduced, they will leave the firm shortly.

Before a company can invest in an asset, it must obtain financing, which means that it must raise the money to pay for the investment. The forms of financing are represented on the right-hand side of the balance sheet. A firm will issue (sell) pieces of paper called *debt* (loan agreements) or *equity shares* (stock certificates). Just as assets are classified as

FIGURE 1.1
The Balance-Sheet Model of the Firm



Left side, total value of assets. Right side, total value of the firm to investors, which determines how the value is distributed.

long-lived or short-lived, so too are liabilities. A short-term debt is called a *current liability*. Short-term debt represents loans and other obligations that must be repaid within one year. Long-term debt is debt that does not have to be repaid within one year. Shareholders' equity represents the difference between the value of the assets and the debt of the firm. In this sense it is a residual claim on the firm's assets.

From the balance-sheet model of the firm it is easy to see why finance can be thought of as the study of the following three questions:

1. In what long-lived assets should the firm invest? This question concerns the left-hand side of the balance sheet. Of course, the type and proportions of assets the firm needs tend to be set by the nature of the business. We use the terms **capital budgeting** and *capital expenditures* to describe the process of making and managing expenditures on long-lived assets.
2. How can the firm raise cash for required capital expenditures? This question concerns the right-hand side of the balance sheet. The answer to this involves the firm's **capital structure,** which represents the proportions of the firm's financing from current and long-term debt and equity.
3. How should short-term operating cash flows be managed? This question concerns the upper portion of the balance sheet. There is often a mismatch between the timing of cash inflows and cash outflows during operating activities. Furthermore, the amount and timing of operating cash flows are not known with certainty. The financial managers must attempt to manage the gaps in cash flow. From a balance-sheet perspective, short-term management of cash flow is associated with a firm's **net working capital.** Net working capital is defined as current assets minus current liabilities. From a financial perspective, the short-term cash flow problem comes from the mismatching of cash inflows and outflows. It is the subject of short-term finance.

Capital Structure

Financing arrangements determine how the value of the firm is sliced up. The persons or institutions that buy debt from the firm are called *creditors*.[2] The holders of equity shares are called *shareholders*.

Sometimes it is useful to think of the firm as a pie. Initially, the size of the pie will depend on how well the firm has made its investment decisions. After a firm has made its investment decisions, it determines the value of its assets (e.g., its buildings, land, and inventories).

The firm can then determine its capital structure. The firm might initially have raised the cash to invest in its assets by issuing more debt than equity; now it can consider changing that mix by issuing more equity and using the proceeds to buy back some of its debt. Financing decisions like this can be made independently of the original investment decisions. The decisions to issue debt and equity affect how the pie is sliced.

The pie we are thinking of is depicted in Figure 1.2. The size of the pie is the value of the firm in the financial markets. We can write the value of the firm, V, as

$$V = B + S$$

where B is the value of the debt and S is the value of the equity. The pie diagrams consider two ways of slicing the pie: 50 percent debt and 50 percent equity, and 25 percent debt and 75 percent equity. The way the pie is sliced could affect its value. If so, the goal of the financial manager will be to choose the ratio of debt to equity that makes the value of the pie—that is, the value of the firm, V—as large as it can be.

[2]We tend to use the words *creditors*, *debtholders*, and *bondholders* interchangeably. In later chapters we examine the differences among the kinds of creditors. In algebraic notation, we will usually refer to the firm's debt with the letter B (for bondholders).

FIGURE 1.2

Two Pie Models of the Firm

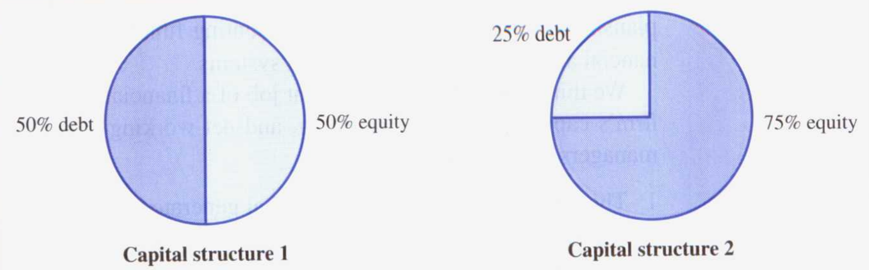
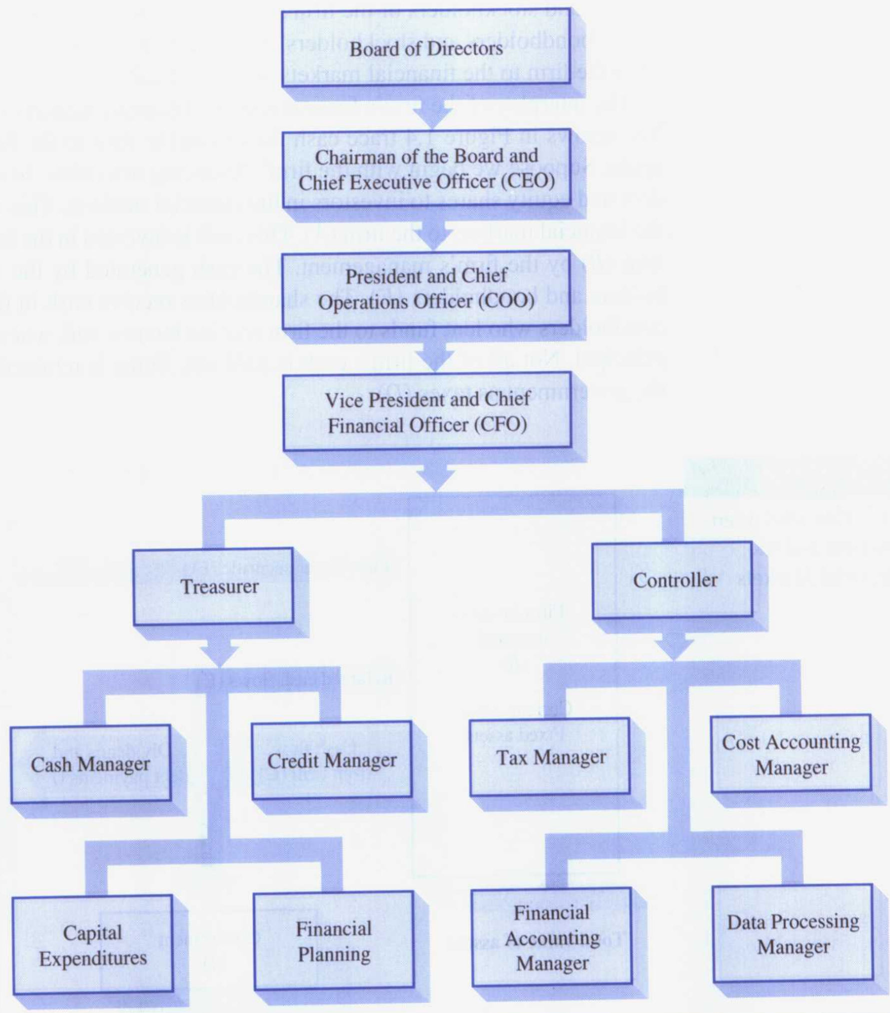


FIGURE 1.3

Hypothetical Organization Chart



The Financial Manager

In large firms the finance activity is usually associated with a top officer of the firm, such as the vice president and chief financial officer, and some lesser officers. Figure 1.3 depicts a general organizational structure emphasizing the finance activity within the firm. Reporting to the chief financial officer are the treasurer and the controller. The treasurer is responsible