Chapter 7

Firms, the Stock Market, and Corporate Governance

Chapter Summary

This chapter examines the organization of business firms, how these firms raise funds to finance their operations, and how they provide information to their owners (both actual and prospective). In the United States, there are three legal types of firms: (1) **sole proprietorships,** (2) **partnerships,** and (3) **corporations**.

Owners of sole proprietorships and partnerships have **unlimited liability**, which means that if the firm goes bankrupt, the owners' personal assets can be seized by anyone the firm owes money to. In the early nineteenth century, state legislatures recognized that unlimited liability interfered with the ability of firms to raise money and passed laws allowing firms to be organized as corporations. Corporations limit the financial liability of firm owners to the amount of their investment in the firm. Limited liability and the ability to raise funds through the sale of corporate stock are key advantages of the corporate form of organization. Corporations are, on average, larger than the other types of businesses. Their size contributes to the difficulty of organizing and managing them.

Corporations are owned by shareholders who elect a board of directors to represent their interests. The directors appoint managers to run the day-to-day operations of the firm. The separation of ownership from control creates an incentive for managers to pursue their own interests, rather than the interests of shareholders. This conflict of interest is referred to as the principal-agent problem.

Stock refers to a financial security that represents partial ownership of a firm. Investors who buy shares of stocks buy part ownership of the firm. Corporations usually choose to keep some part of their profits as retained earnings and pay the remainder as dividends to shareholders. When a corporation's future profits are expected to rise, its stock's share price will rise, providing shareholders with a capital gain. A bond is a financial security that represents a promise to make one or more future payments that are fixed in money terms. Corporations that sell bonds must make promised payments to their bondholders before paying any dividends. Stockholders make an open-ended commitment of funds to the corporations they own so the firm is not obligated to return their funds at any particular date.

Daily buying and selling of stocks and bonds mostly involves existing rather then new issues. Trading takes place in "exchanges" and does not generate new funds for companies whose stocks are being bought and sold. To raise funds through the sale of stocks and bonds, a firm's managers must persuade potential buyers that the firm is profitable. The Securities and Exchange Commission requires U.S. firms that sell stocks and bonds to report their performance in financial statements using generally accepted accounting principles. The firm's income statement and balance sheet provide the public with information regarding the firm's profits or losses, and its assets and liabilities.

The importance of accurate financial statements was highlighted by a series of financial scandals that came to light in 2001 and 2002. Executives of Enron, WorldCom, and other firms falsified financial statements to make their firms appear more profitable than they were. In response to these scandals, the Sarbanes-Oxley Act was passed in 2002 to increase the accountability of corporate officers for the accuracy of their firm's financial statements.

Learning Objectives

When you finish this chapter you should be able to:

1. **Categorize the major types of firms in the United States.** There are three legal categories of firms in the United States. A sole proprietorship is owned by a single individual. Partnerships are firms owned jointly by two or more persons. A corporation can have any number of owners. The main point of creating a corporation is to construct a legal form of business that provides owners with limited liability.

2. **Describe the typical management structure of corporations and understand the concepts of separation of ownership from control and the principal-agent problem.** Corporations are owned by their shareholders, the owners of the corporation's stock. Shareholders elect a board of directors who represent their interests and appoint managers who run the day-to-day operations of the firms. Since top management usually does not own a large share of their firm's stock, they may have an incentive to decrease profits in order to pursue their own interests.

3. **Explain how firms obtain the funds they need to operate and expand**. Firms can raise funds from profits earned from their operations by taking on partners or new owners who invest in the firms and by borrowing. Firms raise external funds directly through financial markets or indirectly through banks and other financial intermediaries.

4. **Understand the information provided in corporations' financial statements**. A firm's income statement summarizes its revenues, costs, and profit over a period of time. A firm's balance sheet summarizes its financial position on a particular day. A balance sheet lists a firm's assets and its liabilities. The value of a firm's assets minus its liabilities equals its net worth.

5. **Understand the role of government in corporate governance**. Several firms including Enron and WorldCom were caught falsifying their financial statements and engaging in deceptive accounting practices. In response to these accounting scandals, new legislation – the Sarbanes-Oxley Act – was enacted. The Act mandates that chief executive officers of corporations personally certify the accuracy of their financial statements and requires financial analysts and auditors to disclose any conflicts of interest that would limit their independence in evaluating a firm's financial condition.

Appendix: Understand the concept of present value and the information contained on a firm's income statement and balance sheet. Your instructor may assign this appendix.

Chapter Review

Chapter Opener: Google: From Dorm Room to Wall Street (pages 208-209)

In 2004, the founders of Internet search engine Google sold part of their firm to outside investors by offering stock to the public. This decision gave the firm a much needed infusion of cash to allow for future growth, and growth for Google has increased the challenges in managing a large firm. Other firms made news in

2001 and 2002 due not to their success but through their involvement in accounting scandals that resulted in the passage of federal legislation intended to improve the accuracy of corporations' financial statements.

Helpful Study Hint

The popularity of Google's stock offering resulted in rich rewards for Google's founders and a huge inflow of funds that the firm can use for future growth. ***An Inside Look*** at the end of this chapter describes the compensation that the owners and the CEO receive and shows the movement in Google's stock price in from 2004 to 2007. Growth has meant that Google's ownership no longer rests solely in the hands of its founders, Larry Page and Sergey Brin. CEO Eric Schmidt is responsible for the operation of the business. To decrease the principal-agent problem, Schmidt receives only a small salary; most of his compensation comes from increases in Google's stock price because Schmidt owns many shares of Google.

Economics in YOUR Life! asks if it is too risky to own the stock of a firm like Google. Keep this question in mind as you read the chapter. The authors will answer this question at the end of the chapter.

7.1 LEARNING OBJECTIVE

7.1 Types of Firms (pages 210-212)

Learning Objective 1 Categorize the major types of firms in the United States.

In the United States, there are three basic legal structures a firm can assume. A **sole proprietorship** is a firm owned by a single individual and not organized as a corporation. A **partnership** is a firm owned by two or more persons and not organized as a corporation. Owners of sole proprietorships and partnerships have control of their day-to-day operations but they are subject to unlimited liability. There is no legal distinction between the owners' personal assets and those of the firms they own. As a result, employees or suppliers have a legal right to sue if they are owed money by these firms, even if this requires the owners to sell their personal assets.

A **corporation** is a legal form of business that provides owners with limited liability. **Limited liability** is the legal provision that shields owners of a corporation from losing more than they have invested in the firm. The profits of corporations are taxed twice in the United States, and corporations are more difficult to organize and run than sole proprietorships and partnerships. Despite these disadvantages, limited liability and the possibility of raising funds by issuing stock make corporations an attractive form of business.

Helpful Study Hint

Corporations are often described as "publicly owned." This phrase means that corporations are owned by members of the general public, not that they are owned by the government.

Making the Connection "What's in a 'Name'? Lloyd's of London Learns about Unlimited Liability the Hard Way" explains that the shareholders of Lloyd's of London did not have the limited liability that is enjoyed by corporate shareholders. The "Names," or owners of Lloyd's, learned they were not protected by corporate status when the company experienced significant losses and the Names were required to pay this money out of their own pockets. Many Names went bankrupt, while others committed suicide.

Extra Solved Problem **7-1**

Chapter 7 in the textbook includes two Solved Problems. Here is another Solved Problem to help you build your skills solving economic problems.

Supports Learning Objective 1: Categorize the major types of firms in the United States.

The Risks of Private Enterprise: Lloyd's of London's "Names" and Enron's Shareholders

The first *Making the Connection* of chapter 7 describes the sad fate that befell investors ("Names") in the Lloyd's of London insurance company in the late 1980s and 1990s. Another section of the chapter described the scandal that drove Enron into bankruptcy in 2002 and caused billions of dollars in shareholder losses.

a. What characteristics of each firm's form of business organization were responsible for the financial losses suffered by the owners of these two firms?

b. How did the nature of these losses differ for each firm?

SOLVING THE PROBLEM

Step 1: Review the chapter material.
This problem is about firms and corporate governance, so you may want to review "Types of Firms," which begins on page 210 in the textbook, and the section "Corporate Governance Policy," which begins on page 221.

Step 2: Evaluate the losses suffered by investors in Lloyd's of London and the characteristic of the firm's form of business organization that was responsible for the size of these losses.
Making the Connection "What's in a "Name"? Lloyd's of London Learns about Unlimited Liability the Hard Way" describes Lloyd's of London as a partnership. A disadvantage of a partnership, as well as sole proprietorships, is the unlimited personal liability of the owners of the firm. The liability Lloyd's partners, or Names, incurred went beyond the amount of funds they invested in the company. Therefore, when the insurance company was hit with a series of financial losses, some of the Names suffered severe personal financial losses.

Step 3: Evaluate the losses suffered by Enron shareholders and the characteristic of the firm's form of business organization that was responsible for these losses.
Although Enron eventually became bankrupt, its shareholders' losses were limited to the amount of funds they had invested in the firm. But the management of Enron was able to engage in highly questionable business practices, the consequences of which were hidden through misleading financial statements. This is a manifestation of the principal-agent problem. The separation of management and ownership inherent in a corporate form of

organization allowed Enron's managers to pursue strategies contrary to the interests of the firm's shareholders.

7.2 LEARNING OBJECTIVE

7.2 The Structure of Corporations and the Principal-Agent Problem (pages 212-214)

Learning Objective 2 Describe the typical management structure of corporations and understand the concepts of separation of ownership from control and the principal-agent problem.

Corporate governance is the way corporations are structured and the effect that structure has on the firm's behavior. Shareholders in a corporation elect a board of directors to represent their interests. The board of directors appoints a chief executive officer (CEO) to run day-to-day operations and may appoint other top managers. Managers may serve on the board of directors (they are referred to as inside directors). Outside directors are directors who do not have a management role in the firm. In corporations, there is a **separation of ownership from control.** In most large corporations the top management, rather than the shareholders, control day-to-day operations. The separation of ownership from control is an example of a **principal-agent problem**, a problem caused by an agent pursuing his own interests rather than the interests of the principal who hired him.

Helpful Study Hint

Although the principal-agent problem is a serious one, managers who pursue their own goals at the expense of the firm's best interests risk the scrutiny of institutional investors (for example, mutual funds and pension funds). Unlike many shareholders who have modest stock holdings, institutional investors may hold a significant percentage of a firm's outstanding shares. These large investors can (and sometimes do) demand that a board of directors make strategic or personnel changes if the firm's performance is unsatisfactory, and they may cause a drop in share prices by selling some or all of their stock holdings.

Read ***Solved Problem 7-2*** in the main text to strengthen your understanding of the principal-agent problem. This Solved Problem explains how the principal-agent problem is easily extended to the relationship between management and workers. Managers would like workers to work as hard as possible, while workers would sometimes prefer to shirk. It may be difficult for management to determine whether a worker is working sufficiently hard or not.

7.3 How Firms Raise Funds (pages 214-218)

Learning Objective 3 Explain how firms obtain the funds they need to operate and expand.

To finance expansion, firms can use some of their profits, called retained earnings, rather than pay the profits to owners as dividends. Firms may obtain external funds in two ways. **Indirect finance** is the flow of funds from savers to borrowers through financial intermediaries such as banks. Intermediaries raise funds from savers to lend to firms and other borrowers. **Direct finance** is the flow of funds from savers to firms through financial markets. Direct finance usually takes the form of the borrower selling a financial security to a lender.

A financial security is a document that states the terms under which the funds have passed from the buyer of the security to the borrower. There are two main types of financial securities. A **bond** is a financial security that represents a promise to repay a fixed amount of funds. When a firm sells a bond to raise funds, it promises to pay the purchaser of the bond an interest payment each year for the term of the loan as well as the final payment (or principal) of the loan. The interest payments on a bond are referred to as **coupon payments**. The **interest rate** is the cost of borrowing funds, usually expressed as a percentage of the amount borrowed. If the coupon is expressed as a percentage of the face value of the bond, we have the coupon rate of the bond.

If the face value of a bond is \$1,000 and the annual interest payment on the bond is \$60, then the coupon rate is

$$\frac{\$60}{\$1,000} = 0.06 \text{ or } 10 \text{ percent}$$

A **stock** is a financial security that represents partial ownership of a firm. As an owner of the firm, a shareholder is entitled to a share of the corporation's profits. Management decides how much profit to reinvest in the firm (retained earnings). The remaining profits are paid to stockholders as **dividends**. Owners receive **capital gains** when there are increases in the price of a firm's shares.

There is a broad market for previously owned stocks and bonds. Changes in the prices of these financial instruments represent future expectations of the profits likely to be earned by the firms that issued them. Changes in the prices of bonds issued by a corporation reflect investors' perceptions of the firm's ability to make interest payments as well as the prices of newly issued bonds. A previously issued bond with a coupon payment of \$80 and a principal of \$1,000 is less attractive than a newly issued bond with a coupon payment of \$100 and a principal of \$1,000. The price of the previously issued bond must fall, and its interest rate must rise, to induce investors to buy it.

Helpful Study Hint

The double taxation of corporate profits—once via the corporate profits tax and again via the income tax on shareholders' dividends—gives corporations an incentive to raise funds more through debt (bonds) than equity (stocks). Some economists have criticized the corporation profits tax because it gives corporations an incentive to incur debt solely to reduce taxes.

Don't Let This Happen to YOU! "When Google Shares Change Hands, Google Doesn't Get the Money" explains the difference between primary and secondary markets for stocks and bonds. In the primary market, stocks and bonds are sold by the issuing companies and the issuing company receives the funds. In the secondary market, stocks and bonds are resold by investors and the investors receive the funds from the sales.

Making the Connection "Following Abercrombie and Fitch's Stock Price in the Financial Pages" provides a thorough explanation of how to read the stock pages in the newspaper using Abercrombie and Fitch as an example.

Extra Solved Problem **7-3**

Chapter 7 in the textbook includes two Solved Problems. Here is an extra Solved Problem to help you build your skills solving economic problems.

Supports Learning Objective 3: Explain how firms obtain the funds they need to operate and expand.

Google's Stocks

On October 25, 2007, Google's stock closed at a price of $668.51 per share and the trading volume for the day was 5,789,704. The trading volume is the number of shares that traded on the secondary market for that day.

a. How much financial capital did the trading of these stocks raise for Google to use for expansion?

b. How could Google raise additional funds for growth?

SOLVING THE PROBLEM

Step 1: Review the chapter material.
This problem is about how firms raise funds, so you may want to review the section "How Firms Raise Funds," which begins on page 214 in the textbook.

Step 2: Discuss the secondary market for stocks and the impact on funds available for Google to expand.
In the feature *Don't Let This Happen to YOU!* entitled "When Google Shares Change Hands, Google Doesn't Get the Money" you will find a description of secondary markets. The majority of stocks that are bought and sold on a daily basis are being traded in the secondary market. Trading in the secondary market does not raise additional funds for Google.

Step 3: Consider the options that Google has to raise funds for growth.
There are three main options for a firm to obtain funds for growth. A firm can save some of its profits, called retained earnings. They can borrow money from a bank. Or they can issue more stocks or bonds and sell them directly to the public. All of these options are available to Google.

Source: http://quotes.nasdaq.com/asp/summaryquote.asp?symbol=GOOG%60&selected=GOOG%60

7.4 LEARNING OBJECTIVE

7.4 Using Financial Statements to Evaluate a Corporation (pages 219-221)

Learning Objective 4 Understand the information provided in corporations' financial statements.

A firm must accurately disclose its financial condition to enable potential investors to make informed decisions about the firm's stock and bond offerings. The Securities and Exchange Commission (SEC) requires publicly owned firms to report their performance according to generally accepted accounting principles.

There are two main types of financial statements. An **income statement** is a financial statement that sums up a firm's revenues, costs, and profit over a period of time. The income statement is used to compute the firm's **accounting profit**, which is the firm's net income measured by revenue minus operating expenses and taxes paid. A **balance sheet** is a financial statement that sums up a firm's financial position on a particular day, usually the end of a quarter or year. The balance sheet summarizes a firm's assets and liabilities. An **asset** is anything of value owned by a person or a firm. A **liability** is anything owed by a person or a firm. The difference between the value of assets and liabilities is the firm's net worth.

Helpful Study Hint

Making the Connection "A Bull in China's Financial Shop**"** explains that although China is experiencing economic growth, its financial markets are still struggling to perform efficiently. Loans for investment and future growth are typically being made to those with political connections, rather than those firms that would receive the funds in a well-functioning financial market. There are a significant number of loans going unpaid being funds are being allocated on the basis of political connections rather than economic efficiency. Many economists doubt whether the Chinese economy can continue its rapid growth without efficient financial markets.

Extra Solved Problem **7-4**

Chapter 7 in the textbook includes two Solved Problems. Here is an extra Solved Problem to help you build your skills solving economic problems.

Supports Learning Objective 4: Understand the information provided in corporations' financial statements.

Accounting Profit versus Economic Profit

Suppose that Sally decides to open a business. Opening Sally's Sassy Salon will cost $200,000 for the necessary capital equipment. Sally is considering two options for financing her new beauty salon. The first option she is considering is to borrow $100,000 and take $100,000 from her savings. The second option is to take $200,000 from her savings to start the business. Suppose that her savings account is earning 5 percent interest and the loan that her bank offered her also has a 5 percent interest rate.

a. What is the explicit cost of opening Sally's Sassy Salon is she chooses the first option? If she chooses the second option? What is the implicit cost of opening Sally's Sassy Salon using the first option? The second option?

b. Which option will give Sally the higher economic profit? The higher accounting profit?

SOLVING THE PROBLEM

Step 1: Review the chapter material.
This problem is about financial statements, so you may want to review the section "Using Financial Statements to Evaluate a Corporation," which begins on page beginning on page 219 in the textbook.

Step 2: Determine the implicit and explicit costs of each option.
The explicit costs would be costs that require an outlay of money, for example, the interest on the loan, and the implicit costs would be the foregone interest on her savings. The first option has an explicit cost of 0.05 x $100,000 = $5,000 and an implicit cost of 0.05 x $100,000 = $5,000. The second option has no explicit cost and has 0.05 x $200,000 = $10,000 in implicit costs.

Step 3: Evaluate the economic and accounting profit for Sally's Sassy Salon.
Assuming that her revenue will be unaffected by her choice of how she finances her new firm, we can see that the explicit cost of the second option is lower than the first option. This means that the second option would have a higher accounting profit. If we consider all of the costs, both explicit and implicit, then we are calculating the economic profit. In this case, the explicit cost plus implicit cost is the same for both options, so the economic profit would be the same for either option.

7.5 LEARNING OBJECTIVE

7.5 Corporate Governance Policy (pages 221-224)

Learning Objective 5 Understand the role of government in corporate governance.

During 2001 and 2002, the importance of providing accurate financial information through financial statements was illustrated by several major financial scandals. The Sarbanes-Oxley Act of 2002 was passed in response to these scandals. The act requires corporate directors and chief executive officers to have greater accountability for the accuracy of their firms' financial statements. The Sarbanes-Oxley Act created a Public Company Accounting Oversight Board to oversee the auditing of public companies' financial reports.

Helpful Study Hint

One result, likely an unintended one, of the Sarbanes-Oxley Act was to increase the demand for newly hired accountants. For example, the accounting firm Ernst and Young hired 4,500 undergraduate accounting students in 2005, an increase of 30 percent from the previous year.

Source: "Jobs: Accountants are kings among grads," *CNNMoney*, June 5, 2005. http://money.cnn.com/2005/06/pf/accountant.jobs.reut/index.htm?ccc=yes

Solved Problem 7-5 describes the characteristics of a good board of directors. The majority of the board should be independent outsiders who have no business connections with the firm. The auditing and compensation committees should be made up entirely of outsiders in order to protect the best interest of the shareholders. The directors who are affiliated with the firm should own stock because, as stockholders, they will share the same goal as other stockholders to maximize profits.

Helpful Study Hint

Economics in YOUR Life! asked if owning stock in a company such as Google is risky. The principal-agent problem adds to your risk. But the rewards to owning stock can also be substantial because you are likely to earn a higher return on your investment over the long run than if you had put your money in a bank account. Buying stock of well-known companies, such as Google, that are closely followed by Wall Street investment analysts helps to reduce the principal-agent problem.

Key Terms

Accounting profit. A firm's net income measured by revenue less operating expenses and taxes paid.

Asset. Anything of value owned by a person or a firm.

Balance sheet. A financial statement that sums up a firm's financial position on a particular day, usually the end of a quarter or a year.

Bond. A financial security that represents a promise to repay a fixed amount of funds.

Corporate governance. The way in which a corporation is structured and the effect a corporation's structure has on the firm's behavior.

Corporation. A legal form of business that provides the owners with limited liability.

Coupon payment. An interest payment on a bond.

Direct finance. A flow of funds from savers to firms through financial markets, such as the New York Stock Exchange.

Dividends. Payments by a corporation to its shareholders.

Economic profit. A firm's revenues minus all of its costs, implicit and explicit.

Explicit cost. A cost that involves spending money.

Implicit cost. A nonmonetary opportunity cost.

Income statement. A financial statement that sums up a firm's revenues, costs, and profit over a period of time.

Indirect finance. A flow of funds from savers to borrowers through financial intermediaries such as banks. Intermediaries raise funds from savers to lend to firms (and other borrowers).

Interest rate. The cost of borrowing funds, usually expressed as a percentage of the amount borrowed.

Liability. Anything owed by a person or a firm.

Limited liability. The legal provision that shields owners of a corporation from losing more than they have invested in the firm.

Opportunity cost. The highest-valued alternative that must be given up to engage in an activity.

Partnership. A firm owned jointly by two or more persons and not organized as a corporation.

Present value. The value in today's dollars of funds to be paid or received in the future.

Principal-agent problem. A problem caused by an agent pursuing his own interests rather than the interests of the principal who hired him.

Separation of ownership from control. A situation in a corporation in which the top management, rather than the shareholders, control day-to-day operations.

Sole proprietorship. A firm owned by a single individual and not organized as a corporation.

Stock. A financial security that represents partial ownership of a firm.

Stockholders' equity. The difference between the value of a corporation's assets and the value of its liabilities; also known as net worth.

Appendix

Tools to Analyze Firms' Financial Information (pages 233-241)

LEARNING OBJECTIVE: Understand the concept of present value and the information contained on a firm's income statement and balance sheet.

Using Present Value to Make Investment Decisions

Most people value funds they have today more highly than funds they will receive in the future. **Present value** is the value in today's dollars of funds to be paid or received in the future. Someone who lends money expects to be paid back the amount of the loan and some additional interest. If someone lends $1,000 for one year at 10 percent interest, the value of money received in the future is:

$$\$1{,}000 \text{ x } (1 + 0.10) = \$1{,}100$$

Dividing this expression by (1 + 0.10) and adjusting terms:

$$\$1{,}000 = \frac{\$1{,}000}{(1.10)}$$

Writing this more generally:

$$\text{Present Value} = \frac{\text{Future Value}}{(1+i)}$$

The present value formula for funds received any number of years in the future (n represents the number of years) is:

$$\text{Present Value} = \frac{\text{Future Value}}{(1+i)^n}$$

The present value formula can be used to calculate the price of a financial asset. The price of a financial asset should be equal to the present value of the payments to be received from owning that asset. The general formula for the price of a bond is:

$$\text{Bond Price} = \frac{\text{Coupon}_1}{(1+i)^1} + \frac{\text{Coupon}_2}{(1+i)^2} + \ldots + \frac{\text{Coupon}_n}{(1+i)^n} + \frac{\text{Face Value}_n}{(1+i)^n}$$

In this formula,

Coupon$_1$ is the coupon payment, or interest payment, to be received after one year.
Coupon$_2$ is the coupon payment after two years.

Coupon_n is the coupon payment in the year the bond matures.
Face Value is the face value of the bond to be received when the bond matures.
The interest rate on comparable newly issued bonds is *i*.

The price of a share of stock should be equal to the present value of the dividends, or the profits paid to shareholders, investors expect to receive as a result of owning the stock. The general formula for the price of a stock is:

$$\text{Stock Price} = \frac{\text{Dividend}_1}{(1+i)} + \frac{\text{Dividend}_2}{(1+i)^2} + \ldots$$

Unlike a bond, a stock has no maturity date, so the stock price is the present value of an infinite number of dividend payments. Unlike coupon payments which are written on the bond and can't be changed, dividend payments are uncertain. If dividends grow at a constant rate, the formula for determining the price of a stock is:

$$\text{Stock Price} = \frac{\text{Dividend}}{(i\text{-Growth Rate})}$$

Dividend refers to the dividend currently received and Growth Rate is the rate at which dividends are expected to grow.

Going Deeper Into Financial Statements

Corporations disclose substantial information about their business operations and financial position to investors. This information is provided for two reasons. First, participants in financial markets demand the information. Second, some of this information meets the requirements of the U.S. Securities and Exchange Commission. The key sources of information about a corporation's profitability and financial position are its income statement and balance sheet. Income statements summarize a firm's revenues, costs and profit over a time period (for example, one year). These statements list the firm's revenues and its cost of revenue (also called its costs of sales or cost of goods sold). The difference between a firm's revenues and costs is its profit. Operating income is the difference between revenue and operating expenses. Investment income is income earned on holdings of investments such as government and corporate bonds. The net income firms report on income statements is referred to as their after-tax accounting profit.

A balance sheet summarizes a firm's financial position on a particular day. An asset is anything of value owned by the firm. A liability is a debt or obligation owed by the firm. **Stockholders' equity** is the difference between the value of a corporation's assets and the value of its liabilities, also known as net worth. Balance sheets list assets on the left side and liabilities and new worth or stockholders' equity on the right side. The value on the left side of the balance sheet must equal the value on the right side. Current assets are assets the firm could convert into cash quickly. Goodwill represents the difference between the purchase price of a company and the market value of its assets. Current liabilities are short-term debts. Long-term liabilities include long-term bank loans and outstanding corporate bonds.

Key Terms – Appendix

Present value. The value in today's dollars of funds to be paid or received in the future.

Stockholders' equity. The difference between the value of a corporation's assets and the value of its liabilities; also known as net worth.

Self-Test

(Answers are provided at the end of the Self-Test.)

Multiple-Choice Questions

1. Which of the following statements is true?
   a. In the United States most firms are organized as corporations.
   b. In the United States there are more partnerships than sole proprietorships.
   c. In the United States corporations account for the majority of total revenue and profits earned by all firms.
   d. All of the above

2. Which of the following types of firms have limited liability?
   a. A corporation
   b. A sole proprietorship
   c. A partnership
   d. All of the above

3. Which of the following sets of firms are likely to be partnerships?
   a. Technology and telecommunications firms
   b. Law and accounting firms
   c. Public utilities, such as the power company and the gas company
   d. All of the above

4. Which of the following is true about liability for a corporation?
   a. The owners of a corporation have limited liability.
   b. The owners of a corporation have unlimited liability.
   c. The owners of a corporation may or may not be subject to unlimited liability.
   d. The owners of a corporation do not face any constraints with regard to liability issues.

5. In which of the following cases is there a legal distinction between the personal assets of the owners of the firm and the assets of the firm?
   a. Sole proprietorships
   b. Partnerships
   c. Corporations
   d. In both the case of sole proprietorships and the case of partnerships

6. When a corporation fails, which of the following is true?
   a. The owners can always lose more than the amount they invested in the firm.
   b. The owners can never lose more than the amount they had invested in the firm.
   c. The owners will always lose less than the amount they had invested in the firm.
   d. What the owners lose is unrelated to liability laws.

7. In the United States, how many times are corporate profits taxed?
   a. Once
   b. Twice
   c. Three times
   d. Often more than three times

8. Refer to the Figure 7-1 in the textbook. Which type of firms account for the majority of revenue earned in the United States in 2007?
   a. Sole proprietorships
   b. Corporations
   c. Partnerships
   d. None of the above

9. Refer to the Figure 7-1 in the textbook. Which type of firm accounts for the majority of the profits earned by different business organizations in the United States in 2007?
   a. Sole proprietorships
   b. Partnerships
   c. Corporations
   d. None of the above

10. Fill in the blanks. According to the textbook, there are more than _________ corporations in the United States, but only _________ have annual revenues of more than $50 million.
    a. 20 million; 1.2 million
    b. 18 million; 2 million
    c. 8 million; 10,000
    d. 5 million; 26,000

11. How much of the total corporate profits in the United States is earned by large firms?
    a. About 10 percent of all U.S. corporate profits
    b. One-half of all U.S. corporate profits
    c. Almost 85 percent of all U.S. corporate profits
    d. 99 percent of all U.S. corporate profits

12. What is *corporate governance*?
    a. Corporate governance is a structure imposed on all corporations by the Securities and Exchange Commission.
    b. Corporate governance is the way in which corporations are structured and the impact a corporation's structure has on the firm's behavior.
    c. Corporate governance is the division of business firms between proprietorships, partnerships, and corporations.
    d. Corporate governance is the relationship between corporations and the government officials in the states in which firms operate.

13. What term do economists use to refer to the conflict between the interests of shareholders and the interests of top management?
    a. Corporate governance
    b. A principal-agent problem
    c. Gold plating
    d. Capture theory

14. How can a firm obtain the funds for an expansion?
    a. By reinvesting profits
    b. By taking on one or more partners who would invest in the firm
    c. By borrowing funds from relatives, friends, or a bank
    d. All of the above

15. Which of the following refers to a flow of funds from savers to firms through financial markets?
    a. Indirect finance
    b. Direct finance
    c. Business finance
    d. Financial borrowing

16. What is the name given to the interest payments on a bond?
    a. Coupon payments
    b. The cost of borrowing funds
    c. The face value of the bond
    d. Capital gains

17. What are the payments by a corporation to its shareholders?
    a. Stocks
    b. Dividends
    c. Retained earnings
    d. Interest

18. Which instruments account for most of the funds raised by borrowers in the United States?
    a. Equity instruments
    b. Debt instruments
    c. Capital instruments
    d. Secondary-market instruments

19. According to the textbook, which of the following are valuable sources of information for corporations that are considering raising funds?
    a. Primary markets
    b. Secondary markets
    c. Tertiary markets
    d. All markets equally

20. What are markets in which newly issued claims are sold to initial buyers by the borrower called?
    a. Primary markets
    b. Secondary markets
    c. Tertiary markets
    d. Initial public offerings

21. In the United States, what market trades the stocks and bonds of the largest corporations?
    a. The Nasdaq
    b. The New York Stock Exchange
    c. The American Stock Exchange
    d. The Chicago Board of Trade

22. Which of the following is the most important of the over-the-counter markets?
    a. The New York Stock Exchange
    b. The American Stock Exchange
    c. The Nasdaq
    d. The S & P 500

23. In the United States the Securities and Exchange Commission requires publicly owned firms to report their performance in financial statements using standard methods. What are these methods called?
    a. Standard and Poor's Accounting Standards
    b. Generally accepted accounting principles
    c. Moody's Investors Service Standards
    d. U.S. Standard Financial Practices

24. If investors are more optimistic about the firm's profit prospects, and the firm's managers want to expand the firm's operations as a result, what will happen to the price of the company's stock?
    a. It will rise.
    b. It will fall.
    c. It will remain constant.
    d. It may rise for a while, then fall.

25. If a bond has a face value of $1,000 and pays a coupon of $70 per year, what is the coupon rate?
    a. 70
    b. $7
    c. 7%
    d. 70%

26. To answer the three basic questions: what to produce, how to produce it, and what price to charge, what does a firm's management need to know?
    a. The firm's revenues and costs
    b. The value of the property and other assets the firm owns
    c. The firm's debts, or other liabilities, that it owes to another person or business
    d. All of the above

27. Which of the following sums up a firm's revenues, costs, and profit over a period of time?
    a. The balance sheet
    b. The income statement
    c. The firm's accounting profit
    d. The firm's economic profit

28. An *income statement* starts with the firm's revenue and subtracts its expenses and taxes paid. What is the remainder called?
    a. Net income, which is the accounting profit of the firm
    b. Gross income, which is the economic profit of the firm
    c. Implicit cost
    d. Explicit cost

29. Which of the following is considered an *explicit cost*?
    a. The cost of labor
    b. The cost of materials
    c. The cost of electricity
    d. All of the above

30. What term do economists use to refer to the minimum amount that investors must earn on the funds they invest in a firm, expressed as a percentage of the amount invested?
    a. Opportunity cost
    b. The normal rate of return
    c. Explicit cost
    d. Economic profit

31. Accounting profit is equal to which of the following?
    (i) Total revenue – explicit costs
    (ii) Total revenue – opportunity costs
    (iii) Economic profit + implicit costs
    a. (i) only
    b. (ii) only
    c. (iiii) only
    d. (i) and (iii) only

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32. In which of the following industries do investors require a higher rate of return?
    a. In more risky industries
    b. In less risky industries
    c. In more established industries, such as electric utilities
    d. In any industry; investors always need to receive high rates of return regardless of the type of investment or the risk involved.

33. Which of the following statements is correct?
    a. Economic profit equals the firm's revenues minus its explicit costs.
    b. Accounting profit equals the firm's revenues minus all of its costs, implicit and explicit.
    c. Accounting profit is larger than economic profit.
    d. All of the above

34. What is a balance sheet?
    a. A summary of a firm's financial position on a particular day
    b. A summary of revenues, costs, and profit over a particular period of time
    c. A firm's net income measured by revenue less operating expenses and taxes paid
    d. A list of anything owed by a person or business

35. What do you obtain by subtracting the value of a firm's liabilities from the value of its assets?
    a. Income
    b. Net worth
    c. Economic profit
    d. Accounting profit

36. Which set of incentives does the top management of a corporation have?
    a. An incentive to attract investors and to keep the firm's stock price high
    b. An incentive to attract investors and to keep the firm's stock price low
    c. An incentive to discourage investors and to keep the firm's stock price high
    d. An incentive to discourage investors and to keep the firm's stock price low

37. Which of the following is true? Top managers who are determined to cheat and hide the true financial condition of their firms can
    a. easily deceive investors, but never outside auditors.
    b. deceive outside auditors, but never investors.
    c. deceive investors, and sometimes also deceive outside auditors.
    d. deceive other managers, but never the company's investors or its outside auditors.

38. The landmark Sarbanes-Oxley Act of 2002 strengthened the expertise with financial information required of corporate directors and mandated that
    a. chief executive officers personally certify the accuracy of financial statements.
    b. financial analysts and auditors shall disclose whether any conflicts of interest might exist that could limit their independence in evaluating a firm's financial condition.
    c. managers shall be held accountable and face stiff penalties (including long jail sentences) for not meeting their responsibilities.
    d. All of the above

39. The creation of the Public Company Accounting Oversight Board is the most noticeable corporate governance reform under the Sarbanes-Oxley Act. What is the mission of this special national board?
    a. To oversee the auditing of public companies' financial reports
    b. To oversee the writing of financial reports
    c. To oversee the behavior of corporate officers
    d. All of the above

40. What does the term "insiders" refer to in the realm of corporate management?
    a. Insiders are auditors who have access to the corporation's financial statements.
    b. Insiders are members of top management who also serve on the board of directors.
    c. Insiders are managers who have connections with people on independent auditing boards.
    d. An insider is anyone who is not part of a public corporation but who knows something that the public at large does not know.

Short Answer Questions

1. Owners of successful sole proprietorships may choose to become corporations in order to raise money to finance expansion and limit the owner's liability. But this will also subject the firm to the principal-agent problem. Why don't sole proprietorships face the principal-agent problem?

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2. Why did the passage of the Sarbanes-Oxley Act lead to an increase in the demand for accountants?

3. In addition to salary and benefits, the compensation of the top managers of many corporations often includes of shares of company stock or options to buy the stock at a favorable price. Why?

4. Explain why a firm that reports a profit on its income statement may suffer an economic loss.

5. Publicly owned firms in the United States are required to report their performance in financial statements using generally accepted accounting principles. These statements are examined closely by private firms and investors. Why did the public disclosure of the statements of Enron and WorldCom fail to provide investors with advance warning of serious financial problems that resulted in billions of dollars of shareholders' losses?

True/False Questions

T F 1. In the United States, Standard and Poor's requires publicly owned firms to report their performance in financial statements.

T F 2. If investors expect a firm to earn economic profits, the firm's share price will rise, providing a dividend for shareholders.

T F 3. Indirect finance refers to raising funds through financial intermediaries such as banks.

T F 4. A disadvantage of organizing a firm as a sole proprietorship or a partnership is that owners have limited liability.

T F 5. A disadvantage of organizing a firm as a corporation is that the firm is subject to the principal-agent problem.

T F 6. Profits that are reinvested in a firm rather than paid to the firm's owners are called retained earnings.

T F 7. The most important of the so-called "over-the-counter" stock markets is the New York Stock Exchange.

T F 8. The value someone gives today to money she will receive in the future is called the future payment's present value.

T F 9. The price of a bond is equal to the present value of dividends, or the profits paid out by the firm that issues the bond.

T F 10. The unexpected rise in the price of Google stock in 2004 led to the passage of the Sarbanes-Oxley Act.

T F 11. Over 70 percent of firms in the United States are sole proprietorships.

T F 12. The day-to-day operations of a corporation are run by the firm's board of directors.

T F 13. An advantage of organizing a firm as a partnership is that the partners share the risks of owning the firm.

T F 14. The legal and financial problems incurred by Enron, WorldCom, and other well-known firms were due to the unlimited liability of the firms' owners.

T F 15. Economic profit is equal to a firm's revenue minus its operating expenses and taxes paid for a given time period.

Answers to the Self-Test

Multiple-Choice Questions

Question	**Answer**	**Explanation**
1	c	Based on data for 2007, corporations accounted for 84 percent of revenue and 59 percent of the profits earned by all firms in the United States. See Figure 7-1.
2	a	The owners of corporations have limited liability, while sole proprietorships and partnerships have unlimited liability. Read page 210 in the textbook.
3	b	Partnerships are firms owned jointly by two or more—sometimes many—persons. Most law and accounting firms are partnerships.
4	a	Most large firms are organized as corporations. A corporation is a legal form of business that provides the owners with limited liability.
5	c	Unlimited liability means there is no legal distinction between the personal assets of the owners of the firm and the assets of the firm. In sole proprietorships and partnerships, the owners are not legally distinct from the firms they own.
6	b	Limited liability is the legal provision that shields owners of a corporation from losing more than they have invested in the firm.

7	b	Corporate profits are taxed twice—once at the corporate level and again when investors receive a share of corporate profits, or (revenues less expenses).
8	b	Although only 20 percent of all firms are corporations, corporations account for the majority of revenue and profits earned by all firms.
9	c	Corporations account for a majority of the total revenue and profits earned by businesses.
10	d	There are more than 5 million corporations in the United States, but only 26,000 have annual revenues of more than $50 million. We can think of these 26,000 firms—including Microsoft, General Electric, and Exxon-Mobil—as representing "big business."
11	c	There are more than 5 million corporations in the United States, but only 26,000 have annual revenues of more than $50 million. We can think of these 26,000 firms—including Microsoft, General Electric, and Exxon-Mobil—as representing "big business." These large firms account for almost 85 percent of all U.S. corporate profits.
12	b	The way in which corporations are structured and the impact a corporation's structure has on the firm's behavior is referred to as corporate governance.
13	b	The fact that top managers do not own the entire firm means they may have an incentive to decrease the firm's profits by spending money to purchase private jets or schedule management meetings at luxurious resorts. This problem occurs when agents—in this case, a firm's top management—pursue their own interests rather than the interests of the principal who hired them—in this case, the shareholders of the corporation.
14	d	All of the above are ways in which firms raise the funds they need to expand operations.
15	b	A flow of funds from savers to firms through financial markets is known as direct finance. Direct finance usually takes the form of the borrower selling the lender a financial security.
16	a	A coupon payment is the interest payment on a bond, usually expressed as a percentage of the amount borrowed.
17	b	Dividends are payments by a corporation to its shareholders.
18	b	Although you hear about the stock market fluctuations each night on the evening news, debt instruments actually account for more of the funds raised by borrowers. In mid-2004, the value of debt instruments in the United States was about $20 trillion compared to $12 trillion for equities.
19	b	According to the textbook, secondary markets are valuable sources of information for corporations that are considering raising funds.
20	a	Primary markets are those in which newly issued claims are sold to initial buyers by the borrower.
21	b	In the United States, the stocks and bonds of the largest corporations are traded on the New York Stock Exchange.
22	c	The stocks of many computer and other high-technology firms—including Microsoft and Intel—are traded on the Nasdaq.
23	b	In most high-income countries, government agencies establish standard requirements for information that is disclosed in order for publicly owned firms to sell stocks and bonds. In the United States this government agency is the Securities and Exchange Commission. To maintain consistency, all firms are required to use generally accepted accounting principles.

24	a	Changes in the value of a firm's stocks and bonds offer important information for a firm's managers, as well as for investors. An increase in the stock price means that investors are more optimistic about the firm's profit prospects, and the firm's managers may wish to expand the firm's operations as a result.
25	c	The coupon rate is always expressed as a percentage of the face value. If the face value is $1,000 and this corporate bond pays a coupon of $70.00 per year, then the coupon rate is 7.00 percent.
26	d	To answer these questions, a firm's management needs the following information: The firm's revenues and costs, the value of the property and other assets the firm owns, and the firm's debts, or other liabilities that it owes to another person or business.
27	b	A firm's income statement sums up the firm's revenues, costs, and profits over a period of time.
28	a	A firm's net income is revenue less expenses and taxes paid in a given time period.
29	d	Firms pay explicit labor costs to employees. They have many other explicit costs as well, such as the cost of the electricity used to light their office buildings.
30	b	Economists refer to the minimum amount that investors must earn on the funds they invest in a firm, expressed as a percentage of the amount invested, as a normal rate of return.
31	d	You can calculate accounting profit by taking the revenue and subtracting out the explicit costs. This is equivalent to taking economic profit and adding back in the implicit costs.
32	a	The necessary rate of return that investors must receive to continue investing in a firm varies from firm to firm. If the investment is risky, investors will require a high rate of return to compensate them for the risk.
33	c	Because accounting profit excludes some implicit costs, it will be larger than economic profit.
34	a	A firm's balance sheet sums up its financial position on a particular day, usually the end of a quarter or a year.
35	b	We can think of the net worth as what the firm's owners would be left with if the firm were closed, its assets were sold, and its liabilities were paid off. Investors can determine a firm's net worth by inspecting its balance sheet.
36	a	The top management of a firm has at least two reasons to attract investors and keep the firm's stock price high. First, a higher stock price increases the funds the firm can raise when it sells a given amount of stock. Second, to reduce the principal-agent problem, boards of directors will often tie the salaries of top managers to the firm's stock price or to the profitability of the firm.
37	c	This is what the textbook argues in "Corporate Governance Poly," beginning on page 221 in the textbook.
38	d	Each of the responses is a provision of the Sarbanes-Oxley Act.
39	a	The board's mission is to promote the independence of auditors to ensure they disclose accurate information.
40	b	"Insiders" are members of top management who also serve on the board of directors.

Short Answer Responses

1. The principal-agent problem is used to describe the consequence of separating ownership and management. There is no such division with a sole proprietorship and no principal-agent problem because the principal is also the agent!

2. The Act requires senior executives of publicly owned firms to have greater accountability for the accuracy of their firms' reporting and created a board to oversee the auditing of companies' financial reports. Because of the financial scandals of 2001 and 2002, there is a demand on the part of government officials and analysts for transparent and accurate financial information.

3. Tying the compensation of managers to the stock price of the firms they manage provides a greater incentive to pursue strategies that enhance profitability. Members of corporate boards of directors choose this form of compensation, in part, in response to the principal-agent problem.

4. An income statement reports a firm's accounting profit, which is net income measured by revenue minus explicit costs—operating expenses and taxes paid—over a period of time. Since the income statement does not account for the implicit costs incurred by the firm, accounting profit will be greater than economic profit. Remember, economic profit is computed by subtracting both explicit and implicit costs from total revenue.

5. Ultimately the accuracy of a firm's statements is dependent on the integrity of corporate officials and the accountants who audit these statements. There is strong evidence that some corporate officials deliberately chose to provide incomplete and misleading information in their financial statements in order to persuade analysts that their firms were more profitable than the actually were.

True/False Answers

1. F This is the responsibility of the Securities and Exchange Commission.
2. F An increase in the share price results in a capital gain.
3. T This is the definition of indirect finance.
4. F These firms have unlimited liability.
5. T The managers of a corporation are typically not the owners, so the principal-agent problem is likely to arise.
6. T This is the definition of retained earnings.
7. F The most important "over-the-counter" market is the National Association of Securities Dealers' Automated Quotation System (NASDAQ).
8. T See the definition of present values in the Appendix to Chapter 7.
9. F This statement confuses stocks with bonds.
10. F The Sarbanes-Oxley Act came about to prevent future accounting scandals like those of Enron and WorldCom in 2001.
11. T See Figure 7-1 on page 212.
12. F The Chief Executive Officer of a corporation is appointed by the Board of Directors to conduct the day-to-day operations.
13. T See pages 210 and 211.
14. F The legal problems resulted due to the stock incentive system associated with top management's pay. The capital gains and dividends that these managers received on their own units of stock were higher due to their manipulation of the accounting information.
15. F This is the definition of accounting profit.