

PART

4

Financial Reporting: Stockholders' Equity

CHAPTER 16
Contributed Capital

CHAPTER 17
Earnings Per Share and Retained Earnings

16

OBJECTIVES

After reading this chapter, you will be able to:

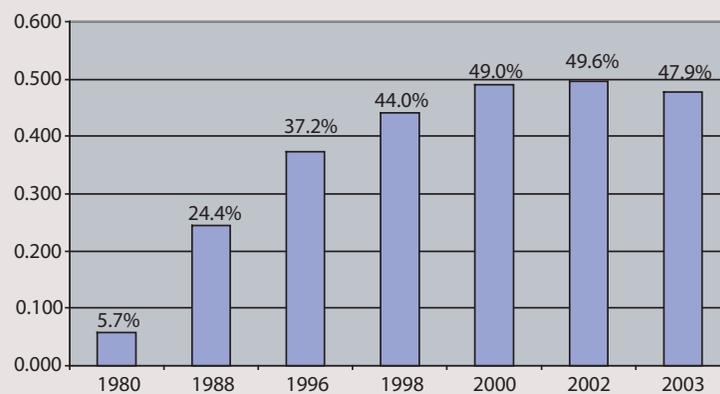
- 1 Explain the corporate form of organization.
- 2 Know the rights and terms that apply to capital stock.
- 3 Account for the issuance of capital stock.
- 4 Describe a compensatory share option plan.
- 5 Recognize compensation expense for a compensatory share option plan.
- 6 Account for a fixed compensatory share option plan.
- 7 Account for a performance-based compensatory share option plan.
- 8 Account for share appreciation rights.
- 9 Describe the characteristics of preferred stock.
- 10 Know the components of contributed capital.
- 11 Understand the accounting for treasury stock.

Contributed Capital

What is the Future of Executive Compensation?

Over the last two decades, stock ownership has increased dramatically. According to the Federal Reserve Board's Survey of Consumer Finances, more than 50% of U.S. households own stock, directly or indirectly—the highest percentage recorded by the Federal Reserve since it started regularly tracking stock ownership in 1983. Many factors have contributed to this growth in stock ownership, including the increasing use of mutual funds that have allowed small investors to diversify their portfolios at a low cost. According to the Investment Company Institute's 2004 Mutual Fund Fact Book, approximately 91 million individuals owned mutual funds in 2003.

U.S. Household Ownership of Mutual Funds



Source: Adapted from the Investment Company Institute, 2004 Mutual Fund Fact Book, p. 80.

This growth in stock ownership has been enhanced by the increasing use of employee share (stock) option plans designed to reward employees for their long-term contributions and provide incentives for them to remain with the company. Historically,



Credit: Greg Pease/The Image Bank

companies usually did not record the “cost” of share options as an expense. For companies that make extensive use of share options, this form of compensation can be quite significant. For example, **Cisco** disclosed in its 2004 annual report that if it had been required to expense the fair value of share options, the additional expense would have decreased income by \$1.215 billion (net of tax). However, after a long and controversial battle, new accounting standards require companies to record the fair value of these options as an expense. One impact of these new standards has already been observed. Because the cost of options are recorded as an expense over the vesting period, many companies have begun to accelerate the vesting of options to avoid having to record an expense once the new rules come into effect.

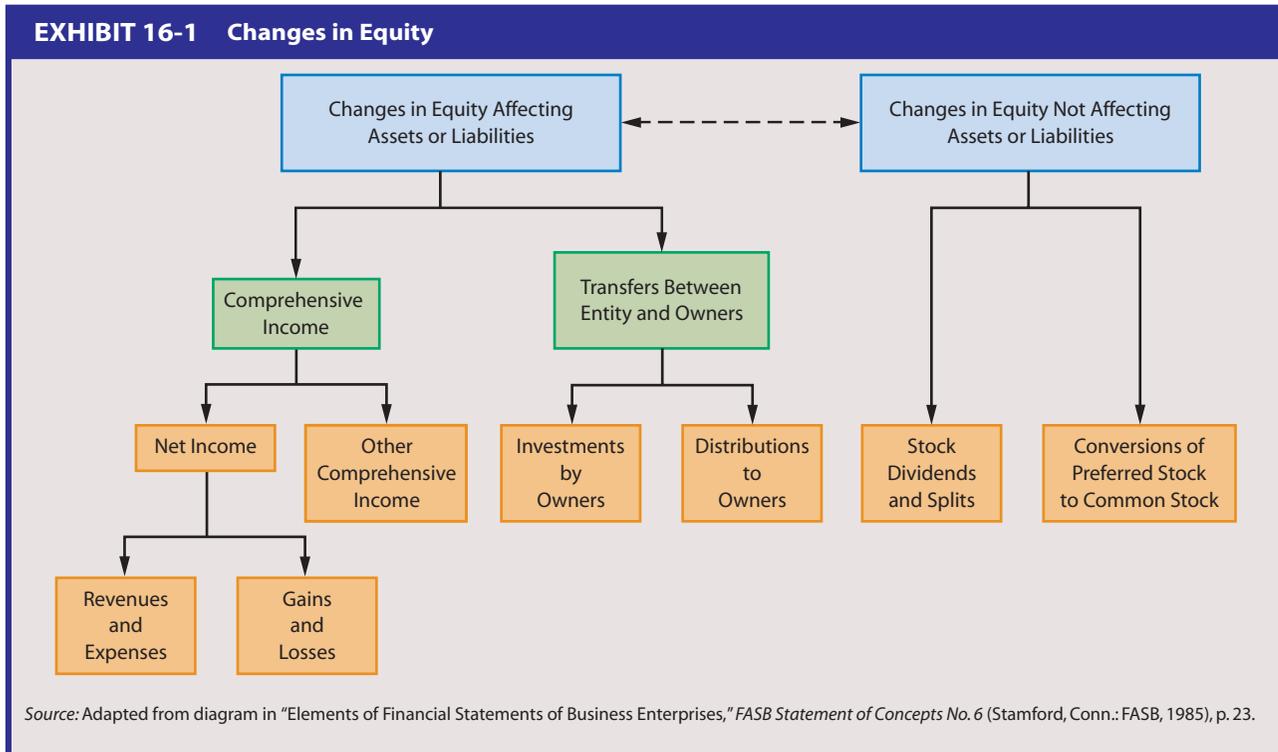
As reported by the *Wall Street Journal*, this practice has already saved **HCA, Inc.** from having to record approximately \$83 million in future compensation expense. Other companies, such as **Dow Jones & Co.**, have employed similar strategies to avoid the recognition of expenses related to share options. Because options must now be recorded as an expense, it is likely that boards of directors will soon be turning to other forms of pay for top executives. Only time will tell what lies ahead for executive compensation.

FOR FURTHER INVESTIGATION

For a discussion of stock options, consult the Business & Company Resource Center (BCRC):

- FASB Adopts Stock-Option Rule. *The Daily Deal* Dec 17, 2004.
- FASB Final Stock Option Ruling Lacks Real World Application; Future of Young, Emerging Growth Companies, IPO Market at Stake. *PR Newswire* Dec 16, 2004.

This chapter is the first of two on stockholders' equity. FASB **Statement of Concepts No. 6** defines equity as the residual interest in the assets of a company that remains after deducting its liabilities.¹ That is, the equity in a company is the ownership interest. Equity, which arises because of ownership rights, is created originally by owners' investments in the company. It may change because of several transactions or events, including cash dividends or other distributions of assets. Exhibit 16-1 summarizes these items.²



In the previous chapters we focused primarily on changes in assets and liabilities and their impact on net income (and equity). The main focus of Chapters 16 and 17, however, is on investments by owners, distributions to owners, and changes in equity not affecting assets or liabilities, as they apply to corporations.

In Chapter 16 we primarily discuss topics involving contributed capital. These issues include the formation of a corporation, the terminology relating to capital stock, the issuance of capital stock, compensatory share (stock) option plans, the contributed capital section of stockholders' equity, and the reacquisition of capital (treasury) stock. In Chapter 17 we primarily discuss issues involving retained earnings.

CORPORATE FORM OF ORGANIZATION

The corporation is the dominant form of company in the U.S. economy today. The number of sole proprietorships and partnerships is much greater than the number of corporations. However, corporations produce and sell many more goods and services. For example, according to recent government statistics, only 20% of companies in the United States are corporations, but they provide more than 86% of the total revenues of all companies.

1. "Elements of Financial Statements of Business Enterprises," FASB Statement of Concepts No. 6 (Stamford, Conn.: FASB, 1985), par. 49.
2. *Ibid.*, par. 60–63.

Types of Corporations

Corporations may be classified in several ways. These classifications include private versus public, open versus closed, and domestic versus foreign. We summarize each of these classifications as follows:

1. **Private** corporations are privately owned. They include *nonstock* companies that do not issue stock and do not operate for profit (e.g., universities, hospitals, and churches). They also include *stock* companies that issue shares of stock to stockholders and operate for profit. Stock companies include open and closed corporations.
 - a. **Open** corporations are those whose stock can be purchased by the public on a stock exchange or over-the-counter, and so are widely held. Open corporations often are called *publicly-traded* corporations.
 - b. **Closed** corporations do not allow the sale of stock to the general public. This stock usually is held by a few stockholders. Closed corporations often are called *privately-held* corporations.
2. **Public** corporations are owned or operated by governmental units, such as the Federal Deposit Insurance Corporation.
3. **Domestic** corporations, as viewed by a particular state, are companies that are incorporated in that state.
4. **Foreign** corporations, as viewed by a particular state, are companies that are operating in the state but are incorporated in another state.

The federal government applies a more global definition to domestic and foreign corporations. To the federal government a domestic corporation is one incorporated in the United States; a foreign corporation is one incorporated in another country.

In this book, we are concerned primarily with private corporations that issue shares of stock.

Formation of a Corporation

Although a corporation actually is a collection of individual owners, legally it is treated as an artificial entity, separate from and independent of these individuals. Thus, ownership is readily transferable. Owners (**stockholders**) have limited liability. That is, they ordinarily have no personal liability for the corporation's debts and risk only their capital investment. Also, owners frequently are not active in its management. As a result, the success of the corporation generally depends on its ability to attract large amounts of capital (from a diverse set of stockholders, each with limited liability), which is controlled by a professional management group for an indefinite period.

In the United States a corporation is a legal entity of a particular state. Each state has its own laws of incorporation. Many are uniform throughout the country, others are not. Normally, one or more individuals may apply for approval to form a corporation. The application includes:

- the names of the individual incorporators;
- the corporate name, address, and nature of business;
- the types, par value (if any), and number of shares of capital stock to be issued; and
- any other information required by the state's law.

The application may also include the names and addresses of the initial subscribers to the capital stock, the number of subscribed shares, the subscription price, and the down payment (if any). If approved, the application is referred to as the **articles of incorporation** (or corporate *charter*). A stockholders' meeting then may be held. At this meeting the initial issuance of capital stock is made to the incorporators, a board of directors is elected, a set of rules (bylaws) regulating the corporate operations is established, and the board appoints the executive officers ("top management") of the corporation.

For a corporation to perform its functions, the state gives it various rights and powers. These include the right to enter into contracts, to hold, buy, and sell property, to sue and

1 Explain the corporate form of organization.

be sued, and to continue in perpetuity. A corporation also has a number of responsibilities. A corporation may engage only in the activities for which it was established, it must adhere to state laws concerning the distribution of income, and it must pay state and federal taxes. Because a corporation's management has the responsibility to abide by state and federal laws and to safeguard and ensure the proper use of capital contributed by a diverse set of owners, accounting for corporate capital is important.

In this chapter we focus on capital stock transactions and their impact on the corporate capital structure. Any statements we make about the characteristics of corporations, capital stock, and a corporation's capital structure are general statements. In any particular state, or for any particular corporation, these statements may not hold.

CORPORATE CAPITAL STRUCTURE

Ownership in a corporation is evidenced by a **stock certificate**, a serially numbered document that indicates the number of shares owned and the par value (if any). Exhibit 16-2 shows a stock certificate for **The Coca-Cola Company**. Because stock certificates are easily transferred from one individual to another, state laws require that each corporation keep appropriate records of its stockholders. The **stockholders' ledger** contains an account for each stockholder that shows the number of shares held. Whenever new shares are issued or shares are exchanged between stockholders, the ledger must be updated. Exchanges of stock are recorded initially in a **stock transfer journal**. This journal contains the names and addresses of the new and former stockholders involved in each stock transfer, the date of exchange, the stock certificate numbers, and the number of shares exchanged.

EXHIBIT 16-2 Illustration of Stock Certificate



"Coca-Cola" is a registered trademark of the Coca-Cola Company

Many corporations employ an independent **transfer agent** (such as a bank) to handle the issuance of stock certificates, as well as a **registrar** to maintain the stockholder records.

Capital Stock and Stockholders' Rights

Capital stock refers to the shares of stock issued by the corporation and owned by its stockholders. Each stockholder has various rights. Generally, these rights include:

- the right to share in the profits when a dividend is declared,
- the right to elect directors and to establish corporate policies,
- the right (called a **preemptive right**) to maintain a proportionate interest in the ownership of the corporation by purchasing a proportionate (pro rata) share of additional capital stock, if more stock is issued, and
- the right to share in the distribution of the assets of the corporation if it is liquidated.

These rights may be modified or waived for some types of capital stock or in specific circumstances. For instance, stockholders who own a certain class of stock may be entitled to vote only on particular issues. Another example involves waiving the preemptive right to allow a corporation to raise significant capital or acquire another company by issuing a large number of additional shares of stock.

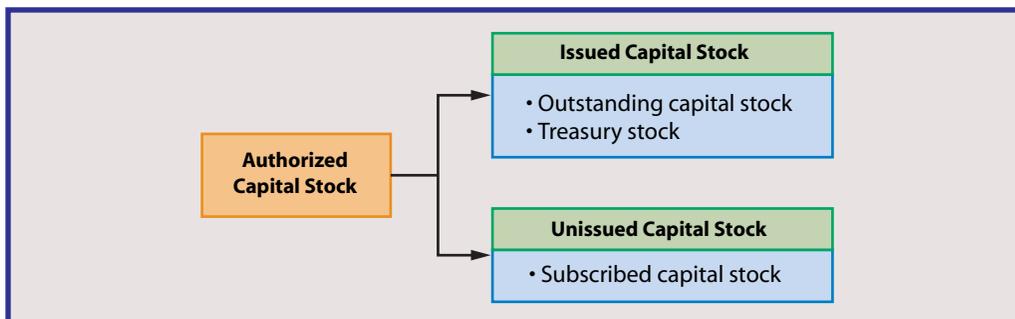
A corporation may issue capital stock for cash, through installment sales, for nonmonetary assets, for compensatory share option plans, and for other types of transactions. It may issue two basic classes of stock, generally designated as common stock and preferred stock. **Common stock** is capital stock that carries all of the preceding rights. Some corporations, however, issue more than one type of common stock such as Class A and Class B common stock. In this situation, usually one type of common stock has greater voting rights than the other to maintain control over the corporate activities. In exchange for certain other privileges, **preferred stock** usually is not granted all of the common stock's rights. We discuss the various stock transactions, as well as the characteristics and privileges of preferred stock, later in this chapter.

Basic Terminology

Several terms are often used in the discussion of capital stock and related transactions:

- **Authorized capital stock.** The number of shares of capital stock (both preferred and common) that a corporation may issue as stated in its corporate charter.
- **Issued capital stock.** The number of shares of capital stock that a corporation has issued to its stockholders as of a specific date.
- **Outstanding capital stock.** The number of shares of capital stock that a corporation has issued to stockholders and that are still being held by them as of a specific date.
- **Treasury stock.** The number of shares of capital stock that a corporation has issued to stockholders and has reacquired but not retired. The number of treasury shares is the difference between the number of issued shares and the number of outstanding shares.
- **Subscribed capital stock.** The number of shares of capital stock that a corporation will issue upon the completion of an installment purchase contract with an investor.

These terms relate to each other as follows:



2 Know the rights and terms that apply to capital stock.

Legal Capital

As we indicated earlier, stockholders have *limited liability*. Generally they cannot be held legally responsible for the debts of the corporation unless the corporation has been operated for the personal benefit of particular stockholders. To protect the corporation's creditors, state laws have established the concept of **legal capital** as the **amount of stockholders' equity that the corporation cannot distribute to stockholders**. A corporation may not pay dividends or reacquire capital stock if such a transaction would impair its legal capital. The definition of legal capital varies among states. An investor must refer to the corporate laws of each state to determine the corporate legal capital in that state. However, in most states the par value or stated value of the issued capital stock is some or all of the legal capital.

Par Value Stock

Historically, the primary way a corporation establishes its legal capital is by issuing par value stock. **The par value of a corporation's capital stock (either common or preferred) is a designated dollar amount per share that is established in the articles of incorporation and is printed on each stock certificate.** When a corporation issues par value stock, most states designate that the par value of all its issued stock is the legal capital. The legal capital of the corporation is the par value per share multiplied by the number of shares issued. The par value of a share often is set very low—perhaps \$5, \$1, or even less per share. Note that the par value of the common stock listed on the stock certificate of The Coca-Cola Company in Exhibit 16-2 is \$0.25 per share.

Since capital stock normally will sell at a price much higher than the par value (e.g., Coke's common stock was recently selling for \$43.50 per share), the legal capital is usually only a small portion of the total proceeds received. Stock rarely sells initially for less than its par value, because it is illegal to do so in most states. If such a sale occurs, the stock is said to have been sold at a *discount*, in which case the stockholder is contingently responsible to contribute sufficient additional capital to meet the corporation's legal capital requirements. In any event, par value has no direct relationship to the **market value**, the price at which the stock is issued. Generally, state regulations require only that a corporation separately account for its legal capital.

No-Par Stock

To avoid the contingent liability that would arise if stock were issued at less than par value, many states allow corporations to issue no-par capital stock. As the term implies, this stock does not carry a par value. When a corporation issues no-par stock, some states require that the corporation designate the entire proceeds received as legal capital. Many states, however, allow the corporate board of directors to establish a **stated value** per share of no-par stock. This stated value, when multiplied by the number of shares issued, generally determines the amount of the corporation's legal capital. The accounting for stated value, no-par stock parallels that of the accounting for par value stock.

The concept of legal capital has had a significant effect on corporate reporting practices, particularly as they apply to the accounting for stockholders' equity. A corporation creates capital stock accounts (for either common stock or preferred stock) to accumulate at least part of the legal capital. It uses Additional Paid-in Capital accounts for the remainder of the capital contributed by stockholders (part of which also may be legal capital).

Additional Paid-in Capital

As we indicated earlier, a corporation may issue capital stock in a variety of transactions. Each of these transactions is likely to involve an exchange price (i.e., market value) significantly higher than the par or stated value of the stock. State law requires the corporation to record the par or stated value. Sound accounting practice (as well as state law in certain states) also requires the corporation to identify, measure, and record the excess value received (the difference between the market value and the par value) in each type of stock transaction. The corporation records this excess in a specific **Additional Paid-in Capital**

account. This account alternatively is titled *Paid-in Capital in Excess of Par (or Stated) Value*, *Premium on Capital Stock*, or *Contributed Capital in Excess of Par (or Stated) Value*, or by an outdated term, *Capital Surplus*. Because this additional paid-in capital is likely to arise from a variety of transactions, a corporation may create a single Additional Paid-in Capital *control* account and then have a subsidiary ledger containing separate additional paid-in capital accounts for each different source. When this occurs, it reports only the control account balance on its balance sheet. In this chapter we assume a control account is *not* used.

STOCKHOLDERS' EQUITY

As we discussed earlier, total stockholders' equity is the residual interest of the owners in the net assets of the corporation—the equity or *capital* of the owners is the corporation's assets less its liabilities. In Chapter 4 we noted that the value of the assets and liabilities could be measured by several methods. The way in which a corporation measures its assets and liabilities will determine its measurement of total stockholders' equity, since the accounting equation: $\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$ must remain in balance. Total stockholders' equity, however, may be made up of several components.

A corporation reports the various components of its capital structure in the stockholders' equity section of its balance sheet. We noted earlier that a corporation records the results of all its stock transactions in capital stock accounts and additional paid-in capital accounts. To report the total amount invested by stockholders, a corporation lists and adds together these accounts in the **Contributed Capital (or Paid-in Capital)** section of its stockholders' equity.

In addition to disclosing total investments by stockholders, state laws and sound accounting practice require a corporation to disclose any net income that has been reinvested in the corporation and not paid out to stockholders as dividends. A corporation reports this element of its corporate capital structure in the **Retained Earnings** section of stockholders' equity. Also, stockholders' equity may increase or decrease as a result of other comprehensive income. A corporation reports this element of its capital structure in an **Accumulated Other Comprehensive Income** section of stockholders' equity. We discuss retained earnings and accumulated other comprehensive income in Chapter 17.

The basic framework of a corporation's stockholders' equity is as follows:

Stockholders' Equity

Contributed Capital	
Capital stock	\$ XX
Additional paid-in capital	XX
Retained earnings	XX
Accumulated other comprehensive income	XX
Total stockholders' equity	<u>XXXXX</u>



SECURE YOUR KNOWLEDGE 16-1

- A corporation, the dominant form of a company in terms of revenues generated, is a legal entity that is separate from and independent of its owners.
- As a legal entity of a particular state, a corporation must follow the laws of the particular state in which it was incorporated.
- Capital stock represents the basic ownership interest in a corporation and possesses various rights including:
 - The right to share in the corporation's profits when a dividend is declared
 - The right to elect directors and establish corporate policies (voting right)

(continued)

- The right to maintain a proportionate share in the ownership of the corporation when new stock is issued (preemptive right)
- The right to share in the distribution of the assets if the corporation is liquidated
- Legal capital, the amount of stockholders' equity that cannot be distributed to stockholders, is often based on the par value or stated value of the capital stock.
- While par and stated values have no direct relationship to market value, these values are needed in many states to properly separate a corporation's legal capital from its other capital accounts.
- Additional Paid-in Capital represents any capital contributed by stockholders in excess of the par or stated value.
- Stockholders' equity, the residual interest of the owners in the assets of the corporation, is generally separated into three primary components: Contributed Capital, Retained Earnings, and Accumulated Other Comprehensive Income.

ISSUANCE OF CAPITAL STOCK

3 Account for the issuance of capital stock.

When a corporation issues only one class of capital stock, it is referred to as common stock. Common stockholders are the claimants to the residual interest in the corporation. Unless waived or modified, common stockholders generally have all the rights we discussed earlier in the chapter. As we pointed out previously, corporations may engage in a variety of transactions related to the issuance of capital stock. We describe the proper accounting for each of these transactions next. Because most capital stock is common stock, our examples are in terms of common stock. However, the journal entries we show apply equally to preferred stock.

Authorization

The corporate charter contains the authorization to issue capital stock. A corporation usually records this authorization in a memorandum journal entry. The entry identifies the number of authorized shares, the par or stated value per share, and, in the case of preferred stock, any preference provisions. Generally, the corporation creates a separate account for each class of capital stock, and makes a similar memorandum entry in each account.

Issuance for Cash

A corporation may issue capital stock with a par value, as no-par stock with a stated value, or as true no-par stock. In the case of par value stock issued for cash, it records the difference between the proceeds and the total par value in an Additional Paid-in Capital account. For example, assume Tyler Corporation issues 500 shares of its \$10 par common stock for \$18 per share. The corporation records the transaction as follows:

Cash (\$18 × 500)	9,000	
Common Stock, \$10 par (\$10 × 500)		5,000
Additional Paid-in Capital on Common Stock		4,000

If, instead, the stock were no-par stock with a stated value of \$10 per share, it would record the preceding transaction as follows:

Cash	9,000	
Common Stock, \$10 stated value		5,000
Additional Paid-in Capital on Common Stock		4,000

Note that, with the exception of the terminology change, accounting for the issuance of no-par stock with a stated value is identical to that of par value stock.

Alternatively, Tyler Corporation may be authorized to issue no-par stock without a stated value. In this case, unless otherwise stipulated, the entire amount of the proceeds

is the legal capital and is recorded in the capital stock account. If the preceding transaction involved no-par, no-stated-value stock, the corporation would record it as follows:

Cash	9,000	
Common Stock, no-par (500 shares)		9,000

Note that in this journal entry the number of *shares* issued is included. This is necessary because the number of shares issued in this transaction cannot be determined by dividing the total increase in the Common Stock account by the par value per share. In the remaining examples of stock issuances we assume a par value for the stock.

As we discussed earlier, most states prohibit a corporation from issuing capital stock at a price below its par or stated value (at a discount). If such a transaction occurs, the original stockholder may be required to pay into the corporation the amount of the discount if the corporation is unable to meet its financial obligations. The corporation *debits* the difference between the proceeds and the par value to an account titled Discount on Common Stock. It reports this account as a contra (negative) account in the Contributed Capital section of its stockholders' equity.

Stock Issuance Costs

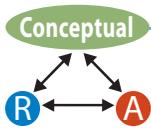
A corporation may incur miscellaneous costs that are related directly to issuing its capital stock. They include items such as legal fees, accounting fees, stock certificate costs, underwriter's fees, promotional costs, and postage. When related to the initial issuance of stock at incorporation, the corporation records these costs as an expense. On the other hand, the costs related to later issuances of stock are considered to be normal financing expenditures and reduce the proceeds from the issuances. When a corporation incurs these costs, it reduces additional paid-in capital for the amount of the costs. The FASB is considering changing GAAP so that all stock issuance costs will be expensed as incurred.

Stock Subscriptions

Investors sometimes agree to purchase capital stock from a corporation on an "installment" basis. This means the corporation and the future stockholder enter into a legally-binding subscription contract. This contract requires the subscriber (investor) to buy a certain number of shares at an agreed-upon price, with payment spread over a specified time period. The contract often requires a down payment and may require the subscribers to issue a promissory note. It may also contain provisions for the handling of any defaults (nonpayments) by the subscriber. Usually, the corporation does not issue shares of capital stock to a subscriber until the subscriber has completed full payment of the subscription price.

Example: Subscription Contract Assume that Pellogrini Corporation enters into a subscription contract with several subscribers. The contract requires the subscribers to purchase 1,000 shares of \$6 par common stock at a price of \$13 per share. The contract further requires a down payment of \$3 per share, with the remaining \$10 per share collectible at the end of one month. The stock will be issued to each subscriber upon full payment. The corporation records the subscription as follows:

Cash (\$3 × 1,000)	3,000	
Subscriptions Receivable:		
Common Stock (\$10 × 1,000)	10,000	
Common Stock Subscribed (\$6 × 1,000)		6,000
Additional Paid-in Capital on Common Stock		7,000



Note that the balance to be received is recorded in a Subscriptions Receivable account. There is disagreement as to how a corporation should report the subscriptions receivable on its balance sheet. Some argue that because the subscription contract is legally binding, the receivable will be collected. Hence, Subscriptions Receivable should be reported as an asset on the corporation's balance sheet. Others contend that Subscriptions Receivable should be listed as a contra-stockholders' equity account because collection is uncertain and the corporation is not assured of obtaining a future benefit. They claim that the receivable does not meet the definition of an asset established in *FASB Statement of Concepts No. 6*. They also claim that receivables from subscriptions are different from normal trade receivables in that no goods or services were provided. The Securities and Exchange Commission supports this view by requiring a corporation to report its subscriptions receivable as a contra-stockholders' equity account in financial statements filed with it. The SEC also felt that a subscription contract could be a "sham" transaction used to inflate the corporation's assets and stockholders' equity. In fact, this is what happened with **Enron Corporation**. Enron created "special purpose entities" and agreed to issue its stock to these entities as part of its investment in these entities. It reported more than \$1 billion of notes (subscription) receivable as assets and an equal amount as stockholders' equity. This overstated Enron's assets and stockholders' equity, which helped lead to its collapse. Most companies report Subscriptions Receivable as a contra-stockholders' equity account.

Note in the Pellogrini example that a Common Stock Subscribed account is credited for the par value of the shares subscribed. This account is used because the shares have not yet been issued. Since the corporation expects the contract to be completed, the Common Stock Subscribed account is reported in the Contributed Capital section of its stockholders' equity. It indicates that the corporation has contracted to issue additional stock. Additional Paid-in Capital is credited for the entire difference between the subscription price (the proceeds) and the par value of the subscribed stock under the assumption that the contract will be completed and the stock fully paid for.

When the corporation receives payment, it debits Cash and credits the Subscriptions Receivable account. At the final payment by a subscriber, it makes a journal entry to transfer the balance in the Common Stock Subscribed account to the Common Stock account, and issues stock certificates for the number of subscribed shares fully paid for by that subscriber. For example, assume that Pellogrini received the \$10 per share final payment from subscribers to 950 shares at the end of the month. The corporation makes the following journal entries to record the final payment and the issuance of the 950 shares of stock:

Cash (950 × \$10)	9,500	
Subscriptions Receivable: Common Stock		9,500
Common Stock Subscribed (950 × \$6)	5,700	
Common Stock, \$6 par		5,700 ♦

Example: Default Occasionally, a subscriber will not pay the entire amount as required by the subscription contract. When a default occurs, the accounting is based on the contract provisions, such as: (1) return to the subscriber the entire amount paid in, (2) return to the subscriber the amount paid in, less any costs incurred by the corporation to reissue the stock, (3) issue to the subscriber a lesser number of shares based on the total amount paid in, or (4) require the forfeiture of all amounts paid in.

For example, assume the subscriber to the 50 remaining shares of Pellogrini defaults on the contract. If the contract requires forfeiture of the entire amount paid in, the corporation makes the following journal entry:

Common Stock Subscribed (50 × \$6)	300	
Additional Paid-in Capital on		
Common Stock (50 × \$7)	350	
Subscriptions Receivable:		
Common Stock (50 × \$10)		500
Additional Paid-in Capital from Subscription		
Default (50 × \$3)		150

If the subscription contract does not address defaults, a default is handled according to the laws of the state in which the corporation is incorporated. ♦



LINK TO ETHICAL DILEMMA

Muddy Water, Inc. catches and supplies fresh seafood to a variety of restaurants across the country. While the company remains profitable, increased competition from South American seafood suppliers has lowered the company's return on equity (net income divided by average stockholders' equity) to a level that the Board of Directors finds unacceptable. In response to these competitive pressures, the company decided to modernize its processing plants in hopes that the resulting increase in efficiency would lead to lower costs and higher profit margins. You were in charge of assembling a team to develop financing options. After carefully analyzing the various options, your team recommended that the modernization be financed by issuing stock. The CEO agreed with your recommendation that equity financing was in the best long-term interest of the company and instructed you to proceed with the stock issuance. However, after returning from a business trip, the CEO informs you that she has changed her mind and the modernization will be financed by debt instead of equity. The CEO confessed that she had discussed the matter with another business professional who informed her that issuing stock would only serve to increase stockholders' equity, which would lower the company's return on equity. Debt financing, on the other hand, might actually help the company reach its return on equity targets. While you confirm that this may be true, you inform the CEO that the debt option is much riskier and the required interest payments would put the company in a shaky cash position. The CEO stated that she understood the risk, but that she really needed to reach the return on equity target to achieve bonuses for her executive team, and any cash flow concerns would not surface until after she retired in two years. Do you have any ethical responsibilities to report the CEO's decision to the Board of Directors?

Combined Sales of Stock

Instead of issuing different classes of securities separately, a corporation may combine two or more classes and issue them in a single "package" transaction. To make the package attractive to investors, the corporation will set the selling price of the package at less than the amount it would receive if it sold each class of securities separately. These transactions may include combinations of common stock, preferred stock, and long-term bonds. When a corporation issues different classes of securities in a combined sale, it allocates the proceeds between the two (or more) securities. This allocation is based on the **relative fair values of the separate securities**. If a fair (e.g., market) value is not known, the securities with the known fair values are assigned a portion of the proceeds equal to their fair values. The remaining proceeds are assigned to the security with the unknown fair value.

Suppose, for example, that Brandt Corporation issues 100 "packages" of securities for \$82.80 per package, or a total of \$8,280. Each package includes two shares of \$10 par common stock and one share of \$50 par preferred stock. If the separate market values are

\$16 per share for the common stock and \$60 per share for the preferred stock, the corporation makes the following journal entry and supporting computations*:

Cash	8,280	
Common Stock, \$10 par (200 shares)		2,000
Additional Paid-in Capital on Common Stock		880
Preferred Stock, \$50 par (100 shares)		5,000
Additional Paid-in Capital on Preferred Stock		400

*Computations:

Aggregate Fair Value

Common Stock: $\$16 \times 2 \text{ Shares} \times 100 \text{ Packages} = \$3,200$

Preferred Stock: $\$60 \times 1 \text{ Share} \times 100 \text{ Packages} = \underline{6,000}$
 $\underline{\underline{\$9,200}}$

Allocation

Common Stock: $\frac{\$3,200}{\$9,200} \times \$8,280 = \$2,880$

Preferred Stock: $\frac{\$6,000}{\$9,200} \times \$8,280 = \underline{5,400}$
 $\underline{\underline{\$8,280}}$

Note that the corporation separates the fair value assigned to each class of stock into the par value and additional paid-in capital in the journal entry.

If only the separate market value of \$16 per share for the common stock is known, Brandt Corporation assigns \$3,200 ($\$16 \times 2 \text{ shares} \times 100 \text{ packages}$) of the proceeds to the common stock, and allocates the remainder of \$5,080 to the preferred stock, as follows:

Cash	8,280	
Common Stock, \$10 par		2,000
Additional Paid-in Capital on Common Stock		1,200
Preferred Stock, \$50 par		5,000
Additional Paid-in Capital on Preferred Stock		80

In the rare case when none of the securities has a market value, a corporation must estimate the fair values. A reasonable allocation must be made to the various elements of equity. If a fair value is established for one (or all) of the securities in the near future that makes this allocation unreasonable, it makes an adjustment of the allocation. If, in the preceding examples, the stock was issued in combination with bonds, then the corporation would record the bonds at a premium or discount based on their relative fair value.

Nonmonetary Issuance of Stock

In some cases a corporation may issue capital stock for assets other than cash, or for services performed. This type of transaction is called a *nonmonetary exchange*. The corporation must assign an appropriate value to the transaction so it can record the exchange properly. This valuation is a particularly troublesome issue when it involves intangible assets such as patents, copyrights, or organization costs. The general rule is to **record the exchange at the fair value of the stock issued or the asset received, whichever is more reliable**. For instance, at the time of the exchange the stock may be selling on the stock market at a specified price but a verifiable value of the asset may be difficult to determine. In this case, the stock market price is used as the fair value at which to record the exchange transaction.

Example: Fair Value of Stock Known Suppose Cody Corporation issues 200 shares of \$10 par common stock for a patent. The stock currently is selling for \$22 per share on the open market, and no significant impact on the market price by the issuance of the

additional shares is expected. The corporation assigns a value of \$4,400 to the exchange, and records the transaction as follows:

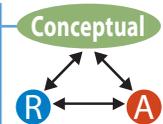
Patent (\$22 × 200)	4,400	
Common Stock, \$10 par		2,000
Additional Paid-in Capital on Common Stock		2,400

If a large number of additional shares are issued, this may significantly reduce the market price. In this case, the corporation does not record the transaction until the reduced market price is known, and records the asset at that price. ♦

Example: Fair Value of Asset Unknown Alternatively, the stock may be closely held and not actively traded. Here, using the fair value of the assets received may be more reliable for recording the transaction. This value may be based on recent transactions involving similar assets or on an appraisal by an independent appraiser. For example, assume that Elk Corporation issues 500 shares of \$8 par common stock that is not widely traded for an acre of land. An independent appraiser indicates the land has a value of \$20,000. The corporation uses the appraisal value of the land as the fair value and records the transaction as follows:

Land	20,000	
Common Stock, \$8 par		4,000
Additional Paid-in Capital on Common Stock		16,000 ♦

When a corporation issues two or more securities for an asset, it uses the combination of the most reliable fair values to determine the total value at which to record the transaction. If reliable fair values for both the stock and the asset are not available, the corporate board of directors must assign the value used to record the exchange. Such an assignment should be based on available supporting evidence. Incorrect valuation of the exchange would lead either to an overstatement of the corporation’s assets and its stockholders’ equity (referred to as **watered stock**), or to an understatement of its assets and stockholders’ equity (referred to as **secret reserves**). Also, errors would arise in later financial statements if the asset is depreciated or amortized against future revenues, or sold.



Stock Splits

The market price of a corporation’s common stock may increase to the point where it discourages investments by some investors. Many corporations believe that wide distribution of ownership improves their public image, increases the demand for their stock, and may increase product sales to these stockholders. To reduce the market price so that it falls within the “trading range” of most investors, a corporation’s board of directors—upon meeting state legal requirements—may authorize a stock split. A **stock split (or stock split-up)** decreases the par value per share of stock and proportionally increases the number of shares issued. Generally, a stock split also results in a proportional increase in the number of shares authorized.

Example: Proportionate Stock Split Assume that Ollar Corporation has 250,000 authorized shares and has issued 60,000 shares of \$10 par common stock. The corporation declares a two-for-one stock split with a reduction to a \$5 par value. After the split 500,000 shares are authorized and a total of 120,000 shares of \$5 common stock are issued. Generally, the additional shares participating in the same amount of earnings will cause a corresponding decrease in the market price per share.

When a corporation has a stock split, it generally does not recall the existing shares. Instead, each stockholder is informed of the new par value per share and is issued an additional number of shares to compensate for the split. From an accounting standpoint, a stock split has no dollar effect on any element of the corporation’s stockholders’ equity. Consequently, a stock split has no effect on total stockholders’ equity. In the previous example, the total par value of the issued common stock is \$600,000 prior to and after the stock split.

A corporation ordinarily records a stock split by a memorandum entry that indicates the new par value, the total number of shares issued, and the impact (if any) on the number of authorized shares. For instance, the memorandum entry of Ollar Corporation might read as follows:

The board of directors split the common stock two for one, increasing the issued stock from 60,000 to 120,000 shares. The par value of the stock has been reduced from \$10 per share to \$5 per share and the authorized shares have been increased to 500,000 shares. ♦

Example: Disproportionate Stock Split Occasionally, a corporation will issue a disproportionate stock split in which the reduction in par value is not proportionate to the increase in the number of shares. In this case the corporation must make a journal entry to adjust the legal capital and additional paid-in capital. In the previous example, assume instead that Ollar Corporation reduced the par value to \$4 per share. The corporation would record the disproportionate stock split as follows:

Common Stock, \$10 par (60,000 × \$10)	600,000	
Common Stock, \$4 par (60,000 × 2 × \$4)		480,000
Additional Paid-in Capital from Stock Split		120,000

Although a disproportionate stock split does not affect total stockholders' equity, it does affect the components of Contributed Capital. Occasionally, a corporation may declare a reverse stock split to increase the market value of its stock. A reverse stock split decreases the number of shares and increases the par value per share, and is recorded in a manner opposite to that of a stock split. ♦

Some corporations issue *stock dividends* instead of, or with, cash dividends. Certain large stock dividends are similar to stock splits. We discuss stock dividends in Chapter 17.



SECURE YOUR KNOWLEDGE 16-2

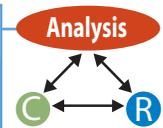
- When common stock is issued for cash, the total par value (number of shares multiplied by the par value per share) is recorded in the Common Stock account, with any excess recorded as Additional Paid-in Capital.
 - For stock with no par or stated value, the total amount received from the sale is recorded as Common Stock.
- Stock issuance costs are recorded either as an expense (if the costs relate to the initial issuance of stock at incorporation) or as a reduction of additional paid-in capital (if the costs relate to subsequent issuances of stock).
- Stock is sometimes issued on a subscription or “installment” basis:
 - The initial entry results in a debit to Cash for the subscription price received; a debit to Subscriptions Receivable (a contra-equity account) for any cash not yet received; a credit to Common Stock Subscribed (a contributed capital account) for the par value of the subscribed shares that have not yet been issued; and a credit to Additional Paid-in Capital for any excess of the subscription price.
 - Final receipt of the amount owed by investors results in the corporation issuing the shares by transferring the balance in Common Stock Subscribed to Common Stock.
- If more than one class of security (common stock, preferred stock, bonds) is issued for a single price, the proceeds are allocated to the different securities based on their relative fair values.
- Capital stock issued for services or assets other than cash should be recorded at the fair value of the stock issued or noncash consideration received, whichever is more reliable.
- A stock split increases the number of shares issued and proportionately decreases the par value per share, resulting in no dollar impact to any element of stockholders' equity. A reverse split works in the opposite manner.

Stock Rights to Current Stockholders

The preemptive right gives current stockholders the opportunity to maintain their proportionate share in the ownership of the corporation if it issues additional shares of the same class of stock. If a corporation's board of directors authorizes the issuance of additional shares, it must extend the preemptive right to the present stockholders, unless they have waived that right. The corporation fulfills the **right** by issuing stock **warrants** to each present stockholder who may then exchange them for additional shares of stock. One stock warrant (right) usually attaches to each share outstanding. However, a stockholder usually must exchange more than one warrant to acquire each additional share. A corporation may also issue stock rights to stockholders for a new issue of stock to encourage rapid sale of the stock. In either case, the rights usually allow stockholders to purchase the additional shares at a price slightly less than the current market price. The rights thus acquire a value themselves. Because the warrants are certificates that are readily transferable, they trade on the stock market in a manner similar to stocks. These stock warrants (rights) generally expire within a short period of time, usually a few weeks.

At the time a corporation issues the warrants, it makes a memorandum entry listing the number of additional shares that may be acquired through the exercise of the stock rights. This entry also provides information for disclosing the outstanding warrants in the notes to its financial statements. If the rights are exercised, the corporation makes the usual journal entry to record the issuance of the stock. If the rights expire, it makes another memorandum entry noting the expiration.

Many corporations also have **share purchase plans** or **share option plans** that enable employees to buy shares of stock, often at a price less than the current market price. These programs involve the issuance of warrants (rights) to the employees. The degree of allowed participation in these plans varies. At one extreme, all employees are eligible to participate. At the other extreme, a plan is available only to one, or a few, key employees within the company. Also, the purchase price may be at a small discount from the current market price, or a price established when the options were granted. These plans are established for various reasons: (1) the need to attract more equity capital, (2) the belief that employee ownership will lead to a greater commitment to corporate activities, and (3) the desire to provide further compensation for certain employees. **FASB Statement No. 123R** addresses the accounting for the warrants involved in employee share purchase and option plans. It is a complex *Statement*; we summarize only the primary elements here. The *Statement* differentiates between noncompensatory share purchase plans and compensatory share option plans.



NONCOMPENSATORY SHARE PURCHASE PLANS

A noncompensatory employee plan (share purchase plan) is designed by a corporation to raise capital or to obtain more widespread employee ownership of the corporate stock. Three criteria must be met for a share option plan to be noncompensatory:

1. Substantially all employees who meet limited employment qualifications may participate in the plan on an equitable basis.
2. The discount from the market price does not exceed the per-share amount of stock issuance costs avoided by not issuing the stock to the public. A purchase discount of up to 5% automatically complies with this criterion.
3. The plan has no option features other than the following: (a) employees are allowed a short time (no longer than 31 days) from the date the purchase price is set to decide whether to enroll in the plan, and (b) the purchase price is based solely on the market price of the stock on the purchase date, and employees are permitted to cancel their participation before the purchase date and obtain a refund of any amounts previously paid.³

3. "Share-Based Payment," *FASB Statement of Financial Accounting Standards No. 123* (revised 2004) (Norwalk, Conn.: FASB, 2004), par. 12. In the text, we will refer to this as *FASB Statement No. 123R*.

If all these criteria are met, the plan is a **noncompensatory plan** because no compensation is considered to be paid to employees. The corporation makes a memorandum entry when it issues the stock warrants, indicating the number of additional shares that may be acquired. If the warrants are exercised, the corporation makes the usual journal entry to record the stock issuance. If not exercised, it makes a memorandum entry noting the expiration.

In some cases, employees of a corporation (with its assistance) will set up an employee share ownership plan (called an ESOP) for investment purposes. ESOPs vary from corporation to corporation. In one type of ESOP, a trustee borrows money from a financial institution and uses the funds to purchase shares in the corporation for the employees. Usually, the corporation guarantees the liability of the ESOP (using the shares as collateral). It also may agree to make contributions to the ESOP to pay the interest on the liability and to help the ESOP acquire more of the corporation's stock. If the corporation only assists in the initial financing of the ESOP, at the time of borrowing the corporation records an increase in cash (for the amount received from the trustee for the stock) and a liability. It also records the issuance of the stock and a contra-equity account for the unearned ESOP shares that are used as collateral on the loan. It reduces the liability and contra-equity accounts (and increases stockholders' equity) as the ESOP makes payments on the debt that it guaranteed. If the corporation also makes contributions to the ESOP, it treats these contributions as interest expense and "deferred compensation" (a "negative" component of stockholders' equity), which it allocates to compensation expense.⁴

COMPENSATORY SHARE OPTION PLANS

4 Describe a compensatory share option plan.

In addition to cash salaries, many corporations have share-based compensation plans. A **share-based compensation plan** (often called a **stock option plan**) is a compensation arrangement (award) established by a corporation. Under this plan, its employees, in exchange for their services, receive shares of stock, share options, or other equity instruments (or the corporation incurs liabilities to employees in amounts based on the price of its stock). In this chapter we focus primarily on share options (stock options), because they are the most common type of plan.

A share option plan that does *not* possess *all* three criteria we listed in the previous section is a compensatory plan. A **compensatory share option plan is intended to provide additional compensation to selected employees within the corporation.** The terms of a compensatory share option plan are often complex and relate to items such as the number of shares to which each employee is entitled and the option price (both of which may depend on some future event), whether cash may be received instead of shares, the period of service the employee must complete before becoming eligible, the date the option can first be exercised, and the date of expiration (if any).

Historical Perspective and Conceptual Overview

Before we discuss the current generally accepted accounting principles for compensatory share option plans, it is useful to review how these plans work, how corporations accounted for them in the past, and related conceptual issues. Under a common type of plan, a corporation grants selected employees (e.g., top managers) the rights to purchase shares of stock at a set price (called the **exercise price** or **option price**; these terms are used interchangeably) some time in the future (usually several years) in exchange for their services. The corporation generally issues nontransferable warrants to the employees as evidence of the rights. Each warrant generally allows the employee to acquire one share of common stock. So, for instance, a corporation may grant an employee the right to purchase 1,000 shares of common stock at the end of three years at an exercise (option) price of \$20 per share. If the market price increases to

4. For a more detailed discussion, see "Employer's Accounting for Employee Stock Ownership Plans," *AICPA Statement of Position 93-6* (AICPA: November 23, 1993).

\$35 per share at the end of three years, the employee can exercise the option and acquire shares with a value of \$35,000 ($\$35 \times 1,000$) by paying only \$20,000 ($\$20 \times 1,000$). Clearly, this is a valuable share option for the employee.

Intrinsic Value

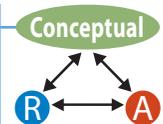
APB Opinion No. 25 initially governed the accounting for compensatory share option plans. It required the use of the “intrinsic value method.” **Under the intrinsic value method**, a corporation measured the total compensation cost for each employee as the excess of the market price of the stock over the exercise price for the specified number of shares on the date the corporation grants the option. The corporation recognized this total compensation cost as an expense on a “straight-line” basis over the years from the date of grant to the date the shares could first be purchased.

In cases where the exercise price was *equal to or higher than* the market price on the grant date, the corporation incurred *no* compensation cost and therefore recognized *no* compensation expense. This situation frequently occurred because compensatory share option plans usually are written to take advantage of Internal Revenue Service rules regarding the income taxes of the employees participating in the plans. These plans are called *qualified (incentive) stock option plans*. That is, according to the tax rules, if the exercise price is set at (or greater than) the market price of the stock on the grant date, then the plan qualifies for special tax treatment. The options are not considered to be taxable compensation of the employee on that date. Instead, the income taxes generally are deferred until the employee exercises the stock option (or in some cases even later when the stock is sold). At that time any gain is taxed at a lower, long-term capital gains rate.

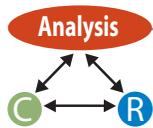
Fair Value

From a conceptual standpoint, many external users were critical of the intrinsic value measurement method. They noted that the fair value of a share option may be a significant portion of the total compensation of each employee. For instance, a study showed that share option grants averaged 81% of the total cash compensation of the top executives of the nation’s 100 largest financial institutions. In addition, the dollar value of compensatory share option plans can be quite large. For example, Wal-Mart’s compensation expense for its plan was \$102 million in 2004. External users felt that measuring a corporation’s compensation cost as the difference between the market price of the stock and the exercise price on the grant date understated—in many cases, significantly—the fair value of the share option and the corresponding compensation expense (and overstates the corporation’s net income). They argued that while this measurement approach was *reliable*, it was *not relevant*. They were concerned that this approach overstated a corporation’s *return on investment* (because of overstated net income) and misstated the *risk* associated with an investment (because of potential earnings dilution if the options were exercised) in the corporation. They were also concerned about the lack of *comparability* across corporations because of the inability to identify similarities and differences among different compensatory share option plans.

There are many views about what should be the proper value (and compensation expense) of a compensatory share option plan. We summarize these views under two alternatives. One alternative is that a corporation should measure the compensation based on the fair value of the *benefits received* (that is, the value of the employee’s services) by the corporation at the time of grant. This might involve estimating the cash salary forgone in lieu of the share option, perhaps adjusted to a present value basis, as a measurement of the share option value. The second alternative is that the fair value of the option should be based on the *costs sacrificed* (the value of the shares given up) by the corporation. This might involve estimating the fair value of the option using an “option pricing model.” With these conceptual issues as well as practical concerns in mind, amid considerable controversy the FASB studied compensatory share option plans for several years before issuing the initial version of *FASB Statement No. 123*.



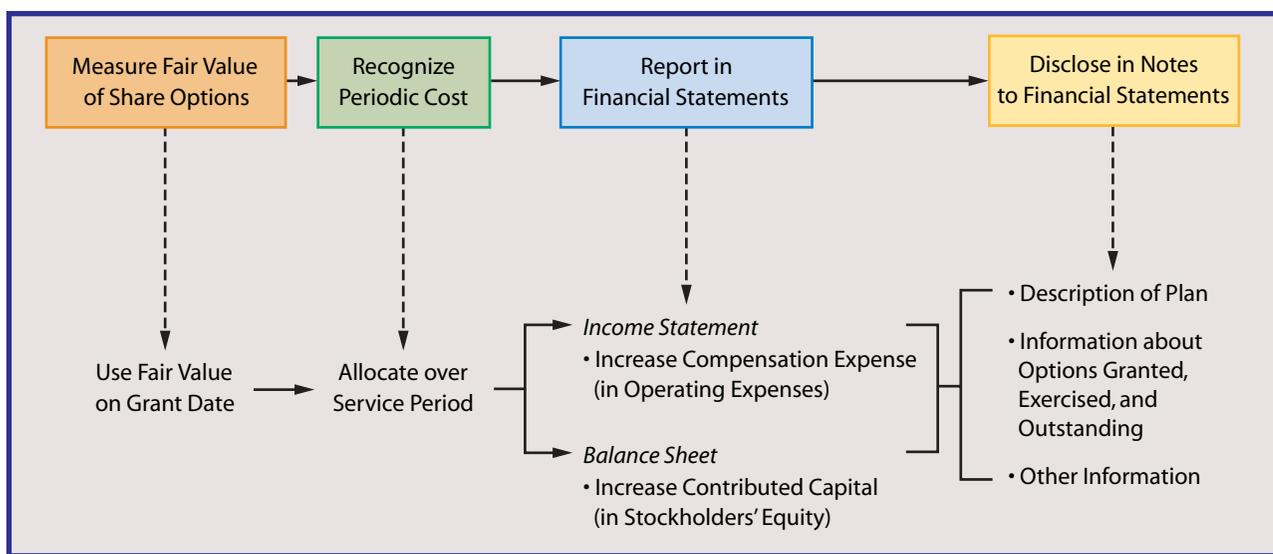
Political Controversy Prior to issuing *FASB Statement No. 123*, the FASB issued an *Exposure Draft* as part of its due process. This *Exposure Draft*, if enacted, would have required a company to use a fair value method to account for the compensation cost resulting from its compensatory share option plan. The *Exposure Draft* was extremely controversial. Various constituencies were strongly opposed to the fair value method. They lobbied the FASB (the Board received nearly 1,800 comment letters, mostly negative) to persuade it not to require use of the fair value method. They even had bills introduced in Congress to outlaw its use. These efforts threatened the very existence of the FASB. As a result, when *FASB Statement No. 123* was initially issued, the FASB allowed a company the option of using the fair value method or the intrinsic method to account for its compensatory share option plan. Not surprisingly, most companies continued to use the intrinsic value method (and generally did not recognize any compensation expense related to their plans).



The serious financial reporting failures that occurred in the early 2000s led external users, accountants, and even Congress to revisit this issue. Many people felt that because compensation expense was not recognized under the intrinsic method, many companies' income statements were misleading. In response to the need for high-quality "transparent" financial reporting, more and more companies began to use the fair value method. However, these companies were using different methods to measure fair value, which led to noncomparability across companies. Also, about the same time, the International Accounting Standards Board issued an *Exposure Draft* that proposed a single fair value method to account for all share-based compensation plans. To help increase comparability and to harmonize U.S. and international accounting standards, in December 2004, the FASB issued *FASB Statement No. 123R*.

Conceptual Overview *FASB Statement No. 123R* requires the use of the fair value method. Since accounting for a compensatory share option plan under the fair value method affects both a corporation's income statement and balance sheet, *FASB Statement No. 123R* addresses several related issues. These issues include (1) how to measure the fair value of stock options issued for employees' services, (2) how to recognize and report the related compensation expense, and (3) what additional disclosures should be made for the plan.⁵

The following conceptual diagram of the recommended method of accounting will help you see the "big picture" before we discuss the detailed accounting issues.



5. The discussion in the following three sections primarily is a summary of the generally accepted accounting principles established in *FASB Statement No. 123* (revised 2004), par. 5–64. The *Statement* also addresses share-based payment transactions with nonemployees and for which it is not possible to estimate fair value. We do not discuss these topics.

Measurement of Fair Value

A corporation must use a fair value method to account for its compensatory share option plan. This approach is consistent with the general principle we discussed earlier in the chapter that a nonmonetary exchange is recorded at the fair value of the stock issued or the asset received, whichever is more reliable. For a compensatory share option plan, it is the fair value of the share options or the services received. Usually it is very difficult for a corporation to determine the fair value of the services it received (in part, because the employees will provide these services in the future and also will receive a cash salary), so the focus is on determining the fair value of the share options.

The fair value of a share option in a compensatory plan is measured based on the market price of an option with the same or similar terms and conditions. Most of the time, similar options don't exist so that the fair value must be estimated. A corporation estimates the fair value of a share option on the grant date using an option pricing model (e.g., the Black-Scholes-Merton model or a lattice model). The **grant date** is the date on which the corporation and an employee have an agreement concerning the terms of the share-based compensation award. On this date, the corporation becomes contingently obligated to issue common stock to the employee who fulfills the service requirements of the plan (e.g., working for the corporation for a certain number of years). Once the fair value is measured on the grant date, it is *not* remeasured for later changes in the underlying variables of the option pricing model (which we discuss below).

Option Pricing Model

The option pricing model that a corporation uses must take into account, as of the grant date, the following variables: (1) exercise price, (2) expected life of the option, (3) current market price of the underlying common stock, (4) expected volatility of the stock, (5) expected dividends on the stock, and (6) risk-free interest rate for the expected term of the option. We do not illustrate complex option pricing models in this chapter because they involve the use of standard deviations and natural logarithms. Also, computer programs of these models have been designed so that the fair value of a share option can be estimated by including the preceding variables. However, it is helpful to understand that a complex option pricing model is an expansion of the basic option pricing model. The basic model (for a share option where it is known with certainty that the share price at maturity will exceed the exercise price) is as follows:

$$\text{Option value (fair value)} = \text{Current stock price} - \text{Present value}^6 \text{ of exercise price}$$

or

$$O = M - \frac{E}{(1 + i)^n}$$

where: **O** = option value on grant date
M = market price of stock on grant date
E = exercise price
i = risk-free interest rate
n = number of years until option expires

Based on this basic equation, we can make the following observations:

- the higher the market price of the stock (M) on the grant date, the more the option is worth;
- the higher the exercise price (E), the less the option is worth;
- the higher the risk-free interest rate (i), the more the option is worth; and
- the longer the years (n) until the option expires, the more the option is worth.

6. See the TVM Module for a discussion of present value.

For instance, a higher market price of the stock on the grant date means that there is a greater difference between this price and the set exercise price; hence, the option is more valuable. The more complex option pricing models expand on this equation by including expected dividends and volatility variables in the equation.⁷ For simplicity, in the examples that follow and the end-of-chapter exercises and problems we always assume a fair value (option value) for each option on the grant date.

Recognition of Compensation Expense

5 Recognize compensation expense for a compensatory share option plan.

The total compensation cost is the total fair value of the share options that actually become vested. Share options become **vested** on the date the employee's right to exercise the share options is no longer contingent on the employee performing services in exchange for the options. A corporation does not recognize the total compensation cost in its financial statements on the grant date. Instead, **it recognizes the total compensation cost as compensation expense over the requisite service period using the straight-line method.** The **requisite service period (or simply service period)** is the years during which the employee must perform service (e.g., work for the company) in exchange for the share options. Generally, the service period is the same as the vesting period.⁸

If the corporation expects that a significant number of employees will forfeit their nonvested stock options (because they will not fulfill the service requirements for vesting), then it records the compensation expense each year based on an estimate. The estimated total compensation cost is determined at the grant date by multiplying the fair value per option times the estimate of the number of share options expected to vest. If additional information becomes available after the grant date and estimated forfeitures change, the change is included in compensation expense in the year of the change (we will illustrate this in a later example).

The corporation records the compensation expense⁹ each year as follows:

Compensation Expense	XXX
Common Stock Option Warrants	XXX

The corporation includes the compensation expense¹⁰ as an operating expense on its income statement. It includes the Common Stock Option Warrants¹¹ account balance in the contributed capital section of stockholders' equity on its ending balance sheet.

FASB Statement No. 123R deals with many different types of share-based compensation plans. Appendix A of the *Statement* illustrates the accounting for share option plans that are fixed (with cliff vesting and graded vesting) or performance-based

7. For an explanation of option pricing, see, for instance, J. Marlow, *Option Pricing: Black-Scales Made Easy: A Visual Way to Understand Stock Options, Option Prices, and Stock-Market Volatility* (New York: Wiley, 2001).

8. Typically, share options that are vested are also immediately exercisable. However, if the exercise date (or exercise price) is affected by the service the employee must complete, the service period used to allocate the compensation expense must be consistent with the assumptions used to estimate the fair value of the share options.

9. In many cases the amount of compensation expense a corporation recognizes for financial reporting purposes in a given year will be more (less) than the amount of compensation expense the corporation reports on its income tax return. This temporary difference is a future deductible amount and results in an increase (decrease) in a deferred tax asset. Thus, a corporation would make an additional journal entry to record the change in the deferred tax asset and the adjustment of income tax expense. Since we do not discuss deferred taxes until Chapter 19, we do not deal with deferred tax journal entries in this chapter.

10. For simplicity, we record and report the entire amount as compensation expense. Some companies might capitalize a portion of the amount as part of inventory or another asset.

11. For simplicity, the *FASB Statement No. 123R* examples initially record the credit entry directly to Additional Paid-in Capital. We use a Common Stock Option Warrants account for two reasons. First, reporting this account on a corporation's balance sheet alerts users that warrants are outstanding which, if exercised, may decrease earnings per share. Second, use of a Common Stock Option Warrants account makes it easier to see how the fair value assigned to the warrants flows through the different elements of a corporation's contributed capital as some (or all) of the options are exercised (or expire).

(where the number of options to be earned or the exercise price varies); share option plans with indexed exercise prices, with an exercise price that increases by a fixed amount, or with share appreciation rights; and share option plans for which the terms are modified. We show examples of the measurement and recognition procedures for three of these plans.¹²

Fixed Share Option Plan (with Cliff Vesting)

Assume that on January 1, 2007 Fox Corporation adopts a compensatory share option plan and grants 9,000 stock options (to acquire 9,000 shares of common stock) with a maximum life of 10 years to 30 selected employees. The \$50 exercise price is equal to the market price of the stock on this grant date. All the options vest at the end of three years (this is known as **cliff vesting**), so the service period is three years. This plan is called a **fixed plan** because all the terms (e.g., exercise price, number of shares) are set (“fixed”) on the grant date.

Fox has had historical employee turnover rates of about 3% per year and it expects this rate to continue. Therefore, at the beginning of 2007 it uses a 3% annual forfeiture rate in its compensation cost (and expense) calculations. At the end of 2008, because of increased employee turnover rates in 2007 and 2008, Fox changes its estimated forfeiture rate to 6% per year for the entire service period. At the end of 2009, a total of 7,500 stock options for 25 employees actually vest and the other 1,500 are forfeited.

Using an option pricing model in accordance with *FASB Statement No. 123R*, Fox determines that the fair value of each option is \$17.15 on the grant date. To determine the total estimated compensation cost on the grant date, Fox multiplies the fair value per option times the estimated options that will become vested. This amounts to \$140,871 [$\$17.15 \times (9,000 \times 0.97 \times 0.97 \times 0.97)$, rounded]. On January 1, 2007 (the grant date), Fox makes a memorandum entry to summarize the terms of the compensatory share option plan as follows:

Memorandum entry: On January 1, 2007 the company granted compensatory share options to 30 employees. The plan allows each employee to exercise 300 options to acquire the same number of shares of the company’s common stock at an exercise price of \$50 per share. The options vest at the end of 3 years and expire at the end of 10 years. The estimated fair value of the options expected to be exercised is \$140,871.

Example 16-1 shows the compensation computations for Fox Corporation’s fixed compensatory share option plan over the three-year service period. The 2007 compensation expense is \$46,957, computed by multiplying the \$140,871 total estimated

6 Account for a fixed compensatory share option plan.

EXAMPLE 16-1 Fixed Compensatory Share Option Plan

	2007	2008	2009
Estimated (actual) total compensation cost	\$140,871 ^a	\$128,201 ^b	\$128,625 ^c
Fraction of service period expired	$\times 1/3$	$\times 2/3$	$\times 3/3$
Estimated compensation expense to date	\$ 46,957	\$ 85,467	\$128,625
Previously recognized compensation expense	(0)	(46,957)	(85,467) ^d
Current compensation expense	<u>\$ 46,957</u>	<u>\$ 38,510</u>	<u>\$ 43,158</u>

- a. $\$17.15$ fair value per option \times (9,000 options \times 0.97 \times 0.97 \times 0.97 retention rate), rounded
 b. $\$17.15 \times (9,000 \times 0.94 \times 0.94 \times 0.94)$, rounded
 c. $\$17.15 \times 7,500$ vested; actual total compensation cost
 d. $\$46,957$ (2004) + $\$38,510$ (2005)

12. The three examples are adapted from Appendix A of *FASB Statement No. 123* (revised 2004), par. A87–A96, A105–A108, and A127–A133. For simplicity, in each of these examples we show the adoption of a share option plan in a single year. In reality, a company usually grants new share options *every* year so that the impact on the company’s net income is much greater than that shown.

compensation cost (fair value) times the fraction of the service period expired (1/3). On December 31, 2007, Fox records the compensation expense as follows:

Compensation Expense	46,957	
Common Stock Option Warrants		46,957

The computation of the 2008 compensation expense involves adjusting for the change in the estimated forfeitures. Based on the new estimate, at the end of 2008 the revised total compensation cost is \$128,201 [$\$17.15 \times (9,000 \times 0.94 \times 0.94 \times 0.94)$, rounded]. Since two-thirds of the service period has expired, \$85,467 ($\$128,201 \times 2/3$) of the cost is the compensation expense to date. Because Fox recorded \$46,957 compensation expense in 2007, it recognizes \$38,510 ($\$85,467 - \$46,957$) as compensation expense in 2008. By using this approach, it makes a “catch-up” correction for the change in the previous measurement regarding the estimated forfeitures. On December 31, 2008, Fox records the compensation expense as follows:

Compensation Expense	38,510	
Common Stock Option Warrants		38,510

The last year of the service period is 2009. Because the actual forfeitures were different from the estimated forfeitures, Fox includes another “catch up” correction in the computation of the compensation expense. The 2009 compensation expense is \$43,158, computed as we show in Example 16-1. The December 31, 2009 journal entry is the same as those shown earlier (except for the amount) so we do not repeat it here. After this journal entry, Fox has recorded the entire \$128,625 actual compensation cost (fair value) as an expense over the three-year service period. Also, the Common Stock Option Warrants account has a balance of \$128,625 because each of the 7,500 vested stock options was recorded at its fair value of \$17.15.¹³

When an employee exercises share options, the employee pays the exercise price per share and turns in the option warrants to the corporation in exchange for the stock. The corporation records the issue of the common stock in the usual manner at a **price that is the sum of the cash received plus the previously recorded value of the warrants received**. For instance, suppose that on January 5, 2010 one employee exercises options to purchase 300 shares of Fox Corporation’s \$10 par common stock. On this date the stock is selling for \$70 per share on the stock market. Fox records this transaction as follows:

Cash ($300 \times \$50$)	15,000	
Common Stock Option Warrants ($300 \times \$17.15$)	5,145	
Common Stock, \$10 par		3,000
Additional Paid-in Capital on Common Stock		17,145

The common stock is recorded at a price of \$67.15 ($\50 exercise price + $\$17.15$ option price). The current market price of \$70 is *not* used because these shares were committed to the employee based on the terms (and values) set in the compensation agreement on the grant date. If an employee does not exercise share options before they expire, the amount recorded in the Common Stock Option Warrants account for these options is transferred to Additional Paid-in Capital.

Performance-Based Share Option Plan

Now suppose that instead of the fixed stock option plan, the Fox Corporation adopts a performance-based compensatory share option plan. A **performance-based plan** has one

7 Account for a performance-based compensatory share option plan.

13. In *graded vesting*, a certain percentage of the share options vest each year (rather than in cliff vesting where all the options vest at the end of the service period). In the case of graded vesting, in addition to adjusting each year’s computations for the estimated retention rate, the computations must also be adjusted for the percentage of options that vest in that year. See *FASB Statement No. 123* (revised 2004) (par. A97–A104) for an illustration.

or more terms that are *not* fixed at the grant date. These plans are set up so that the terms will vary depending on how well the selected employees perform during the service period (sometimes these plans are called *variable-term* plans). In other words, the better the employees manage the corporation, the better the terms in the share option plan are for the employees. Performance may be based, for instance, on measures such as earnings or market share for the corporation's products. As earnings or market share increases, the terms of the plan may involve a decrease in the exercise price or an increase in the number of options awarded to the employees.

Assume that the terms of Fox Corporation's performance-based plan adopted on January 1, 2007 are the same as in the previous example (three-year vesting and service period, \$50 exercise price, \$17.15 fair value per option), except that Fox grants each of the 30 selected employees a *maximum* of 300 share options. The options vest in differing numbers depending on the increase in market share of Fox's products over the three-year service period. The terms are as follows: By December 31, 2009:

1. If the market share has increased by at least 5%, at least 100 share options will vest for each employee on that date.
2. If the market share has increased by at least 10%, another 100 share options will vest for each employee, for a total of 200.
3. If the market share has increased by more than 20%, all 300 share options will vest for each employee.

In a performance-based plan, the estimated total fair value depends on the number of options that are expected to be earned during the vesting period. For Fox Corporation's plan, on the grant date it bases the estimated total compensation cost on the estimate of market growth over the three-year vesting period. This cost then is adjusted in later years for any changes in the expected or actual market share growth. On the grant date Fox Corporation estimates that its market share will increase between 10 and 20%, so it assumes 200 share options will vest for each employee. However, at the end of 2009, Fox determines that its market share has increased over the three-year period by more than 20% (so that 300 stock options actually vest for each employee). Furthermore, on the grant date Fox estimates the forfeiture rate on the stock options to be 3% per year, but changes it to 6% at the end of 2008. At the end of 2009, 25 employees vest in 7,500 stock options.

Example 16-2 shows the compensation computations for Fox Corporation's performance-based compensatory share option plan over the three-year service period. In 2007 the \$93,914 estimated total compensation cost is based on the 200 share options expected to vest and an expected annual forfeiture rate of 3%. At the end of 2008 the \$85,467 estimated total compensation cost is based on the same expected share options, but on an expected 6% annual forfeiture rate. At the end of 2009 the \$128,625 actual total compensation cost is based on the 300 actual share options that vest and the actual 25 employees who vest in the plan. Fox Corporation allocates the compensation cost to

EXAMPLE 16-2 Performance-Based Compensatory Share Option Plan

	2007	2008	2009
Estimated (actual) total compensation cost	\$93,914 ^a	\$85,467 ^b	\$128,625 ^c
Fraction of service period expired	$\times 1/3$	$\times 2/3$	$\times 3/3$
Estimated compensation expense to date	\$31,305	\$56,978	\$128,625
Previously recognized compensation expense	(0)	(31,305)	(56,978)
Current compensation expense	<u>\$31,305</u>	<u>\$25,673</u>	<u>\$ 71,647</u>

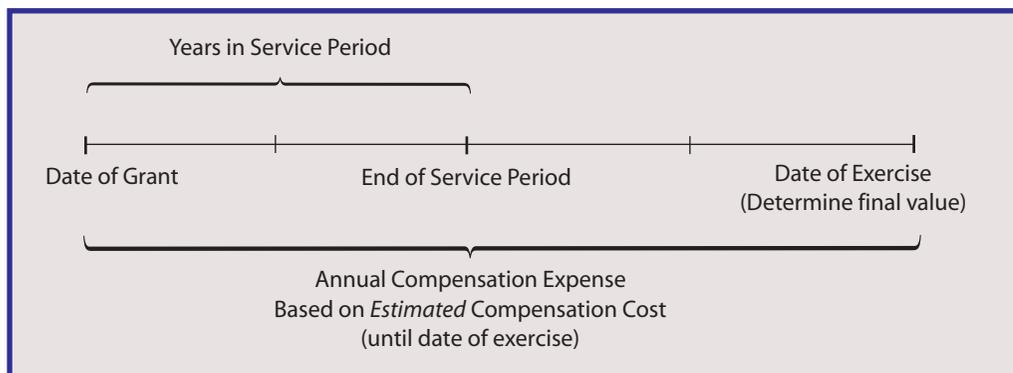
- a. $200 \text{ options} \times (30 \text{ employees} \times 0.97 \times 0.97 \times 0.97 \text{ retention rate}) \times \$17.15 \text{ fair value per option}$, rounded.
 b. $200 \times (30 \times 0.94 \times 0.94 \times 0.94) \times \17.15 , rounded
 c. $300 \times 25 \times \$17.15$; actual total compensation cost

compensation expense each year using the same procedure as we showed in the previous example. Because the memorandum entry and journal entries to recognize the yearly compensation expense are the same as in the previous example (except, of course, for the amounts), we do not repeat them here.

Share Appreciation Rights

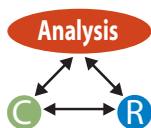
Although compensatory share option plans provide selected employees with the opportunity to buy shares of stock with a market value in excess of the option price, these plans have some disadvantages. At the time of exercise, the employee must have enough cash to pay the option price and any income taxes. For some employees, this is a significant cash flow problem. To remedy at least part of this problem, corporations have developed compensatory share option plans involving share appreciation rights. **Share appreciation rights (SARs)** are rights granted to selected employees that enable them to receive cash, stock, or a combination of both equal to the *excess* of the market value over a stated price of the corporation's stock on the date of *exercise*. SARs are an advantage to an employee because the employee can receive the market appreciation of the corporation's stock in cash on the date of exercise, without paying cash to actually acquire the stock.

FASB Statement No. 123R treats SARs the same way as other compensatory share option plans, with several exceptions. A company accounts for a SARs plan using the fair value method. So, it estimates the fair value of the SARs on the date of grant (and makes a memorandum entry summarizing the grants). For fixed share option plans, the estimated fair value of the total compensation cost is set on the grant date because this is the date when the variables used to determine the fair value are known. However, for SARs, the fair value can only be determined on the *date the rights are exercised* because the cash payment is a function of the stock price on that date.¹⁴ Therefore, for a SARs plan, a company (1) estimates the total compensation cost at the end of *each* year based on the fair value of the SARs *at that time*, (2) records compensation expense over the service period based on these estimates (and any corrections of previous estimation errors), and (3) makes additional adjustments to compensation expense at the end of each year *after* the service period has expired, up to the date of exercise, as we show in the following diagram:



Accounting for a SAR plan also differs from the accounting for a compensatory share option plan in two ways. First, the adjustments (increases or decreases) that are made at the end of each year to compensation expense *after* the service period has expired (until the date of exercise) are based on the difference between 100% of the estimated total compensation cost and the accrued compensation expense recognized to date. Second, the credit entry to recognize the accrued compensation is made to a *liability* account if the company can be required to pay cash to the employee on the date of exercise.¹⁵

8 Account for share appreciation rights.



14. *FASB Statement No. 123* (revised 2004), par. 36.

15. *Ibid.*, par. 32.

For example, assume that on January 1, 2006, when the market price is \$60 per share, Wolf Corporation grants share appreciation rights to a selected employee. (For simplicity, in this example we show the calculations for one executive who is expected to remain employed by the company. If more employees were involved, estimates of turnover would be included in the calculations, as we showed in the previous two examples.) Under the SAR plan, the executive will receive cash for the difference between the quoted market price and \$60 for 1,000 shares of the company's common stock on the date of exercise. The service period is four years and the rights must be exercised within 10 years from the grant date.

On the grant date, using an option pricing model, the corporation estimates that the fair value of each SAR is \$19. Therefore, the corporation makes a memorandum entry on January 1, 2006 indicating that the estimated fair value of this SAR award is \$19,000 (\$19 × 1,000). At the end of each year until the date of exercise, the corporation estimates the fair value of each SAR on that date. We show the year-end fair value per SAR in Example 16-3. The executive exercises the rights on December 31, 2010 when the quoted market price of the company's common stock was \$94 per share. The calculations of the annual compensation expense are shown in Example 16-3. At the end of each year, the corporation records the SAR compensation by debiting Compensation Expense and crediting SAR Compensation Payable for the amount calculated in the last column of Example 16-3. For instance, on December 31, 2007, Wolf Corporation makes the following journal entry:

Compensation Expense	10,000	
SAR Compensation Payable		10,000

EXAMPLE 16-3 SAR Annual Compensation Expense

Date	Fair Value per SAR	Estimated Total Compensation Cost ^a	Percent Accrued ^b	Total Compensation Expense to Date ^c	Accrued Compensation Expense to Date ^d	Yearly Compensation Expense ^e
12/31/06	\$20	\$20,000	25%	\$ 5,000	—	\$ 5,000
12/31/07	30	30,000	50	15,000	\$ 5,000	10,000
12/31/08	18	18,000	75	13,500	15,000	(1,500)
12/31/09 ^f	26	26,000	100	26,000	13,500	12,500
12/31/10 ^g	34	34,000	100	34,000	26,000	8,000
						\$ 34,000

- a. Fair value per SAR × 1,000 shares; at end of 2006, \$20 × 1,000 shares
- b. Service years to date ÷ Total service period; at end of 2006, 1 ÷ 4 = 25%
- c. Amount from footnote a × Percent from footnote b; at end of 2006, \$20,000 × 0.25
- d. Amount for previous year from footnote c
- e. Amount from footnote c – Amount from footnote d
- f. End of service period
- g. Date of exercise

An exception to this procedure occurs in 2008. Because the fair value at the end of 2008 decreased below that of 2006, the corporation makes an adjusting entry *debiting* SAR Compensation Payable and *crediting* Compensation Expense for \$1,500 to reduce the total accrued liability. Of course, the SAR Compensation Payable account can never have a debit *balance* because the cumulative compensation expense can never be negative. On December 31, 2010 the corporation makes the following journal entry to recognize the SAR compensation expense for 2010 and to record the exercise of the rights:

Compensation Expense	8,000	
SAR Compensation Payable		26,000
Cash [(\$94 market price – \$60 option price) × 1,000]		34,000

Note that by the end of 2010, the corporation has recognized total compensation expense of \$34,000 for this SAR plan, the amount paid to the employee on the date of exercise.



Additional Disclosures

A corporation must disclose several items of information about its compensatory share option plan. This information includes:

1. A description of the plan, including the general terms, such as the service period, number of shares authorized for grants of options, and maximum term of options granted.
2. The number and weighted-average exercise prices for options granted, exercised, outstanding, forfeited, and expired during the year.
3. The weighted-average grant-date fair values of options granted during the year.
4. A description of the method and assumptions (e.g., risk-free interest rate, expected life, and volatility) used during the year to estimate the fair values of options.
5. The total compensation cost for the year related to its plan.

Illustration of Disclosure

Real Report 16-1 shows Note 15 of the 2004 annual report of the **Target Corporation** relating to its share option plans.



Real Report 16-1 Disclosure of Share Option Plan

TARGET CORP.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (in part)

Stock-based Compensation In December 2004, the Financial Accounting Standards Board finalized Statement of Financial Accounting Standards No. 123R, "Share-Based Payment" (SFAS No. 123R). SFAS No. 123R eliminates accounting for share-based compensation transactions using the intrinsic value method prescribed in APB Opinion No. 25, "Accounting for Stock Issued to Employees," and requires instead that such transactions be accounted for using a fair-value-based method.

STOCK-BASED COMPENSATION (in part)

We maintain a long-term incentive plan for key employees and non-employee members of our Board of Directors. Our long-term incentive plan allows for the grant of equity-based compensation awards, including stock options, performance share awards, restricted stock awards, or a combination of awards. A majority of the awards are non-qualified stock options that vest annually in equal amounts over a four-year period. Therefore, in accordance with SFAS No. 123R, we recognize compensation expense for these awards on a straight-line basis over the four-year vesting period. These options generally expire no later than ten years after the date of the grant. Options granted to the non-employee members of our Board of Directors vest after one year and have a ten-year term. Performance share awards represent shares issuable in the future based upon attainment of specified levels of future financial performance. We use a three- or four-year performance measurement period for performance share awards. The number of unissued common shares reserved for future grants under the stock-based compensation plans was 51,560,249 at January 29, 2005 and 19,279,658 at January 31, 2004.

OPTIONS AND PERFORMANCE SHARE AWARDS OUTSTANDING

(options and shares in thousands)	Options						Performance Shares Potentially Issuable
	Total Outstanding			Currently Exercisable			
	Number of Options	Average Price*	Average Life**	Number of Options	Average Price*	Average Life**	
February 2, 2002	31,315	\$24.07	5.7	17,629	\$17.04	5.7	—
Granted	6,096	30.60					552
Canceled	(561)	35.55					
Exercised	(2,063)	12.22					

Continued

(options and shares in thousands)	Options						Performance Shares Potentially Issuable
	Total Outstanding			Currently Exercisable			
	Number of Options	Average Price*	Average Life**	Number of Options	Average Price*	Average Life**	
February 1, 2003	34,787	\$25.73	5.5	21,931	\$20.89	5.4	552
Granted	4,638	38.34					573
Canceled	(407)	34.77					
Exercised	(2,859)	12.58					
January 31, 2004	36,159	\$28.28	6.2	23,689	\$24.48	5.2	1,125
Granted	4,072	49.12					629
Canceled/forfeited	(513)	35.32					(73)
Exercised/earned	(7,727)	20.95					(73)
January 29, 2005	<u>31,991</u>	<u>\$32.59</u>	<u>5.8</u>	<u>22,102</u>	<u>\$28.79</u>	<u>5.3</u>	<u>1,608</u>

* Weighted average exercise price.

** Weighted average contractual life remaining in years.

Total compensation expense related to stock-based compensation, which is the total fair value of shares vested was \$60 million, \$57 million, and \$49 million, during 2004, 2003, and 2002, respectively. The weighted-average grant date fair value of options granted during 2004, 2003, and 2002 was \$13.10, \$11.04, and \$10.07, respectively. The total intrinsic value of options (the amount by which the stock price exceeded the strike price of the option on the date of exercise) that were exercised during 2004, 2003, and 2002 was \$201 million, \$72 million, and \$66 million, respectively.

NONVESTED OPTIONS AND PERFORMANCE SHARE AWARDS

(options and shares in thousands)	Weighted Average		Weighted Average	
	Stock Options	Fair Value at Grant Date	Performance Shares	Fair Value at Grant Date
Nonvested at February 1, 2004	12,470	\$ 11.07	1,125	\$34.33
Granted	4,072	13.10	419	49.43
Vested/earned	(6,237)	11.25	(73)	34.44
Forfeited/cancelled	(416)	11.00	(73)	34.44
Nonvested at January 29, 2005	<u>9,889</u>	<u>\$11.83</u>	<u>1,398</u>	<u>\$38.84</u>

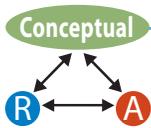
As of January 29, 2005, there was \$104 million of total unrecognized compensation expense related to nonvested share-based compensation arrangements granted under our plans. That cost is expected to be recognized over a weighted-average period of 1.5 years.

The Black-Scholes model was used to estimate the fair value of the options at the grant date based on the following assumptions:

	2004	2003	2002
Dividend yield	.7%	.8%	.8%
Volatility	22%	29%	35%
Risk-free interest rate	3.8%	3.0%	3.0%
Expected life in years	5.5	5.0	5.0

Questions:

1. The market price of Target shares at the end of fiscal 2004 was \$49.41 per share. Assuming that all share (stock) options were exercised at fiscal year-end, what was the "profit" or "loss" made by employees who exercised their options in 2004?
2. How many options are currently exercisable at the end of fiscal 2004? How many shares does Target have reserved for future grants under its share option plan?
3. How much compensation expense was unrecognized at the end of fiscal 2004? When is this expense expected to be recognized?



Conceptual Evaluation

From a conceptual standpoint, by requiring corporations to use a fair value method of accounting for their compensatory share option plans, *FASB Statement No. 123R* goes a long way toward remedying the criticisms raised about the intrinsic method. Use of the fair value method increases the *relevance* of the accounting information because it shows the fair value of the share options. Although some people argue that the *reliability* of the accounting information is decreased because of the use of estimates, this is similar to using estimates for items such as depreciation and bad debts. Whereas the estimates involve complex issues, the issues are no more complex than those involving postemployment benefits (which we discuss in Chapter 20). Other people argue that the reliability is increased because the result is more *representationally faithful* in that the accounting information better depicts the economic obligation. Use of the fair value method provides a more relevant measure of a corporation's *return on investment* and *earnings per share* because compensation expense (based on fair value) is included in the corporation's net income. Similarly, a better assessment of *risk* is possible because external users are able to better evaluate the likelihood of the exercise of the share options. Finally, *comparability* is improved because external users can better contrast the terms of different plans with the information provided in the notes to the financial statements.

On the other hand, there are several criticisms of the way the fair value method is applied in *FASB Statement No. 123R*. First, the fair value of the share options is measured only on the grant date using an option pricing model. This fair value is not further adjusted for changes in the variables of the model, even though some of these variables (e.g., volatility and risk-free interest rate) change with changes in the underlying economy. Not allowing adjustment of the fair value may distort reporting of the real value of the share options. However, not adjusting is consistent with generally accepted accounting principles that are based on transactions. Second, under the fair value method, a corporation will have an expense even if its employees never exercise their share options because the market price is less than the option price. Finally, many people argue that an "opportunity cost" method should be used because under this method a corporation would recognize compensation expense based on actual market values and not estimates.



SECURE YOUR KNOWLEDGE 16-3

- Noncompensatory employee share purchase plans are not intended to compensate employees for services performed but are instead designed to raise capital or obtain more widespread employee ownership of the company's stock.
- The accounting objective of compensatory share option plans, designed to provide additional compensation to selected employees, is to recognize compensation expense over the periods in which the employees perform a service and earn the options.
- Compensatory share option plans are accounted for under the fair value method, which:
 - Measures total compensation cost using the fair value of the options on the date the options are granted (estimated using an option-pricing model),
 - Adjusts total compensation cost for estimated forfeitures of the nonvested share options, and
 - Recognizes total compensation cost as compensation expense over the service period using the straight-line method.
- In a fixed share option plan, all terms (e.g., exercise price, number of shares) are set at the grant date which allows a company to measure total compensation cost at the grant date. Any subsequent adjustments to compensation cost involve only changes in estimated forfeitures.
- In a performance-based share option plan, one or more of the terms (e.g., exercise

(continued)

price, number of shares) vary with managerial performance which requires total compensation cost to be adjusted during the vesting period in response to changes in the terms of the share option plan.

- Stock appreciation rights (SARs) allow employees to receive cash, stock, or a combination of both equal to the increase of the stock price over a stated value on the date of exercise.
 - SARs are accounted for using the fair value method, with compensation expense recorded over the service period.
 - The value of the SAR plan is estimated based on the fair value of the SARs on the date of grant and is later adjusted each year until the SARs are *exercised*.
 - Any adjustments to compensation expense that occur after the service period has expired are accounted for in the period the estimate is revised.

PREFERRED STOCK CHARACTERISTICS

Some investors consider certain stockholder rights to be more important than others. Therefore, they are willing to give up some rights in exchange for preferences for other rights. To attract these investors, a corporation may issue a class of capital stock called **preferred stock**. The preferred stock contract identifies the stockholders' rights as well as the rights of the corporation. Various preferred stock characteristics may be specified in the contract, including:

- preference as to dividends,
- accumulation of dividends,
- participation in excess dividends,
- convertibility into common stock,
- attachment of stock warrants (rights),
- callability by the corporation,
- mandatory redemption at a future maturity date,
- preference as to assets upon liquidation of the corporation, and
- lack of voting rights.

We discuss each characteristic in the following sections.

Preference as to Dividends

Holders of preferred stock have a **preference as to dividends** because a corporation must pay any applicable dividends to preferred stockholders before a dividend may be paid to common stockholders. Since most preferred stock is issued with a par value, the preferred dividend may be expressed as a percentage of this par value. If no-par stock is issued, the preferred dividend is expressed as a dollar amount per share.

For example, assume that Trask Corporation has outstanding 2,000 shares of 8%, \$100 par preferred stock. In this case:

- Each stockholder is entitled to an \$8 ($\100×0.08) annual dividend per share.
- The corporation must pay \$16,000 of dividends ($8\% \times \$100 \times 2,000$ shares) to preferred stockholders before it may pay any dividends to common stockholders.

A preference as to dividends does not guarantee, however, that a corporation will pay a preferred dividend in any given year. This is because dividend payments are at the discretion of the board of directors. To protect preferred stockholders further, a corporation may issue cumulative preferred stock.

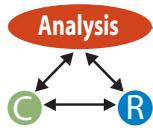
Cumulative Preferred Stock

A corporation's stockholders are not legally entitled to share in dividends unless these dividends have been declared by its board of directors. If dividends are "passed" (that is, *not* declared) in a particular year, a holder of **noncumulative** preferred stock will never be

9 Describe the characteristics of preferred stock.

paid that dividend. For this reason, corporations seldom issue noncumulative preferred stock because investors think this feature is a distinct disadvantage.

Most preferred stock is **cumulative**. If a corporation fails to declare a dividend on cumulative preferred stock at the stated rate on the usual dividend date, the amount of passed dividends becomes **dividends in arrears**. Dividends in arrears accumulate from period to period. A corporation cannot pay common stockholders any dividends until it has paid the preferred dividends in arrears. The dividends in arrears are *not* a liability to the corporation, because no liability exists until the dividend declaration. Nonetheless, this information is very important to investors and other interested parties in predicting future cash flows, and so a corporation discloses dividends in arrears in a note to its financial statements.



For example, assume that Richland Corporation has outstanding 1,000 shares of 10%, \$100 par cumulative preferred stock. Each share of stock is entitled to a \$10 annual dividend (computed by multiplying the 10% times the \$100 par value). If the corporation does not pay dividends in 2007 and 2008, preferred stockholders would be entitled to dividends in arrears of:

- \$10,000 at the end of 2007 and
- \$20,000 at the end of 2008.

At the end of 2009, Richland Corporation would have to pay \$30,000 (for three years) to preferred stockholders before it could pay any dividends to common stockholders.

Participating Preferred Stock

When preferred stock is **participating**, preferred stockholders share with the common stockholders in any “extra” dividends. Extra dividends are paid only after preferred stockholders have been paid their stated dividend *amount* and common stockholders have been paid at a *rate* equal to that paid on the preferred stock.

For example, if Pierce Corporation has 9%, \$100 par participating preferred stock and \$10 par common stock outstanding, it must pay preferred stockholders \$9 per share (9% of the \$100 par) and common stockholders 90 cents per share (9% of the \$10 par). Then, if the total dividends paid are greater than the amount needed to meet these dividend requirements, an extra dividend arises.

Participating preferred stock may be either fully or partially participating. **Fully participating preferred stockholders share equally with the common stockholders in any extra dividends.** When a corporation pays extra dividends, they are distributed to the fully participating preferred stockholders and common stockholders proportionately based on the respective total par values of each class of stock. **Partially participating preferred stockholders share in extra dividends, but this participation is limited to a fixed rate or amount per share.**

In the preceding example, if the 9% preferred stockholders participated up to a maximum of 12% of the preferred stock par value, their share in any extra dividends would be limited to 3% of this par value. We show an example of participating preferred stock dividends in Chapter 17 in the section dealing with cash dividends. Participating preferred stock, whether fully or partially participating, is rare. Corporations generally agree that preferred stockholders receive too much preference when they are given first preferences as to dividends and also are allowed to share in all dividends.

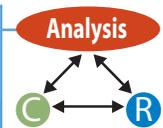
Convertible Preferred Stock

Convertible preferred stock allows stockholders, at their option and under specified conditions, to convert the shares of preferred stock into another security of the corporation. Usually this security is common stock, and the conversion provisions stipulate the conditions and a specific exchange ratio. This exchange ratio is modified, however, if there is a stock split. Since most preferred stock is not participating, the conversion feature

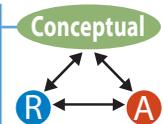


Credit: Comstock Images

allows the holder to exchange the dividend preferences attached to preferred stock for the unlimited rights to corporate income held by common stockholders. This feature is attractive to investors because the exchange ratio tends to tie the market price of the preferred stock to the market price of the common stock when that price is rising. This increases the value of the preferred stock. Conversely, the preferred stock dividend rate tends to stabilize the market price of the preferred stock when common stock prices are falling.



Theoretically, both the preferred features and the potential for common stock equity are valuable to (and paid for by) an investor in convertible preferred stock. Conceptually, then, a corporation could separate the proceeds received when it issues the stock into preferred and common stockholders' equity. However, **APB Opinion No. 14** requires that when convertible preferred stock is issued, no value is assigned to the conversion provision. Any difference between par and market value is recorded as additional paid-in capital on preferred stock.¹⁶ Thus, a corporation accounts for the *issuance* of convertible preferred stock in the same way as for the issuance of nonconvertible stock. This method of accounting is required because of the inseparability of the stock and conversion option, and the difficulty of reliably determining the fair value to attach to the conversion provision. Unfortunately, use of this method places more importance on the legal form of the security than the economic substance of the transaction. The FASB is currently considering whether the conversion feature should be valued separately. However, at the time of writing this book no decision has been made and the accounting for convertible preferred stock continues to follow the generally accepted accounting principles in *APB Opinion No. 14*.



Accounting for the *conversion* of preferred to common stock is very straightforward because the *book value method* is used. (We discussed the book value method in Chapter 14.) The book value method is used (and the market value method is *not* allowed) because it does not result in a corporation recording a gain or loss on a transaction involving its own capital stock, which would violate the concept of income. Under the book value method, the corporation eliminates the contributed capital (that is, the par value and additional paid-in capital) associated with the preferred stock and replaces it with the par (or stated) value of the common stock. If the total contributed capital eliminated for the preferred stock is more than the common stock par value, the corporation records the excess as an increase in additional paid-in capital related to the conversion. If less, the corporation reduces retained earnings because it is considered to be a dividend distribution to the preferred stockholders.

Example: Conversion of Preferred Stock Assume that Ness Corporation originally issued 500 shares of \$100 par convertible preferred stock at \$120 per share. If each preferred

16. "Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants," *APB Opinion No. 14* (New York: AICPA, 1969), par. 12.

share may be converted into four shares of \$20 par common stock and all the shares are converted, Ness makes the following journal entry at conversion:

Preferred Stock, \$100 par	50,000	
Additional Paid-in Capital on Preferred Stock	10,000	
Common Stock, \$20 par (4 × 500 × \$20)		40,000
Additional Paid-in Capital from Preferred Stock		
Conversion (\$60,000 – \$40,000)		20,000

Alternatively, if each preferred share may be converted into seven shares of common stock, upon conversion Ness makes the following entry:

Preferred Stock, \$100 par	50,000	
Additional Paid-in Capital on Preferred Stock	10,000	
Retained Earnings (\$70,000 – \$60,000)	10,000	
Common Stock, \$20 par (7 × 500 × \$20)		70,000

The conversion of preferred to common stock changes the components of, but does not affect the corporation's total, stockholders' equity. ♦

Preferred Stock with Stock Warrants (Rights)

A corporation may also attach warrants to preferred stock to enhance their attractiveness. As we discussed earlier in the chapter and in Chapter 14 for bonds payable, these **warrants** represent **rights** that allow the holder to purchase additional shares of common stock at a specified price over some future period. This period frequently involves a number of years, and in some cases no time limit is set. The longer the time period, the greater the attractiveness of such warrants, since stock prices over the long run have tended to increase. Because these warrants are separable (*detachable*) from the preferred stock, they usually begin trading on the stock market at some market price. This happens whether the specified purchase price of the common stock is greater than, less than, or the same as the current market price.

Theoretically, an investor in preferred stock with attached (detachable) warrants is investing in "dual" rights, each of which has a value. These rights include:

1. the right to dividends that will be paid on the preferred stock, and
2. the right to the market value appreciation of the common stock that may be purchased as a result of the warrants.

Accounting theory suggests that, in recording the issuance of these securities, the economic substance of the event should take precedence over the legal form of the security. Following this theory, *APB Opinion No. 14* states that **the proceeds from the issuance of preferred stock with attached warrants is allocated to preferred stockholders' equity and to common stockholders' equity, based on the relative independent fair values of the two securities at the time of issuance.**¹⁷

Example: Issuance of Preferred Stock and Exercise of Warrants Assume Ponce Corporation issues 1,000 shares of \$100 par value preferred stock at a price of \$121 per share. It attaches a warrant to each share of stock that allows the holder to purchase one share of \$10 par common stock at \$40 per share. Immediately after the issuance, the preferred stock begins selling ex rights (without rights attached) on the market for \$119 per share. The warrants begin selling for \$6 each. Based on the \$119,000 ($\$119 \times 1,000$) and \$6,000 ($\$6 \times 1,000$) relative market values of the preferred stock (ex rights) and the

17. *Ibid.*, par. 16.

warrants, respectively, Ponce Corporation makes the following journal entry to allocate the \$121,000 ($\$121 \times 1,000$) issuance price:*

Cash ($\$121 \times 1,000$)	121,000	
Preferred Stock, \$100 par		100,000
Additional Paid-in Capital on Preferred Stock		15,192
Common Stock Warrants		5,808

*Computations

$$\text{Preferred Stock: } \frac{\$119,000}{\$119,000 + \$6,000} \times \$121,000 = \$115,192$$

$$\text{Common Stock Warrants: } \frac{\$6,000}{\$119,000 + \$6,000} \times \$121,000 = \frac{5,808}{\$121,000}$$

If the warrants did not begin trading, the corporation must make the allocation based on an estimate of the value paid for the warrants.

The corporation lists the Common Stock Warrants account as an element of contributed capital in its stockholders' equity. Assuming all warrants are exercised, Ponce Corporation makes the following journal entry to record the issuance of the 1,000 shares of common stock in exchange for the warrants and \$40 per share:

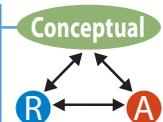
Cash ($\$40 \times 1,000$)	40,000	
Common Stock Warrants	5,808	
Common Stock, \$10 par		10,000
Additional Paid-in Capital on Common Stock		35,808

If any warrants are not exercised, the corporation makes a journal entry debiting Common Stock Warrants and crediting Additional Paid-in Capital from Expired Warrants to transfer the value assigned to the warrants to the existing common stockholders. ♦

Callable Preferred Stock

Preferred stock frequently has a *call* provision. **Callable preferred stock may be retired (recalled) under specified conditions by a corporation at its option.** The corporation includes the specified conditions and call price in the stock contract. The call price is usually several points (dollars) higher than the issuance price and usually establishes a ceiling on the market value of the stock. Typically, the stock contract requires the payment of dividends in arrears before the call is made. Occasionally, callable preferred stock also will be convertible. In this case, the call price may be lower than the issuance price but usually will be higher than the par value. When a corporation recalls convertible preferred stock, the corporation will ordinarily allow the stockholder the choice of conversion or recall.

When a corporation *issues* callable preferred stock, no special accounting is required. The corporation credits the difference between the issuance price and par value to Additional Paid-in Capital. Upon *recall*, the corporation does *not* treat the difference between the call price and the original issuance price as a gain or loss. This prevents a corporation from influencing its earnings by recognizing a gain (or incurring a loss) in transactions involving its own equity securities, in violation of the concept of income. Instead, the corporation eliminates the original contributed capital. That is, it eliminates the par value in the preferred stock account and the additional paid-in capital associated with the recalled preferred stock. If the call price exceeds the total of these amounts, the corporation debits the difference to retained earnings because it is treated as a dividend distribution. In the case in which the call price is less than the total of these amounts, the corporation records the difference as a credit to Additional Paid-in Capital because it is considered to be an additional contribution by the stockholder.



Example: Recall of Preferred Stock Assume that Li Corporation has outstanding 1,000 shares of \$100 par callable preferred stock that were issued at \$110 per share and that no dividends are in arrears. If the call price is \$112 per share, Li Corporation makes the following journal entry to record the recall of these shares:

Preferred Stock, \$100 par	100,000	
Additional Paid-in Capital on Preferred Stock	10,000	
Retained Earnings (\$112,000 – \$110,000)	2,000	
Cash (\$112 × 1,000)		112,000

Although unlikely, if the call price had been \$105 per share, the corporation makes the following journal entry:

Preferred Stock, \$100 par	100,000	
Additional Paid-in Capital on Preferred Stock	10,000	
Cash (\$105 × 1,000)		105,000
Additional Paid-in Capital from Recall of Preferred Stock (\$110,000 – \$105,000)		5,000

The recall and retirement of preferred stock causes a permanent reduction in the corporation's stockholders' equity. (This is not to be confused with *treasury stock*, which is reacquired but not retired, as we discuss later in the chapter.) ♦

Redeemable Preferred Stock

In contrast to convertible preferred stock and callable preferred stock, some preferred stock is redeemable. **Redeemable preferred stock either may be subject to mandatory redemption at a specified future maturity date for a specified price, or redeemable at the option of the holder** (instead of being callable at the option of the issuer). Redeemable preferred stock has a key characteristic of a liability because of the likelihood of a cash outflow in the future that the company has no ability to prevent. Therefore, a corporation with mandatorily redeemable preferred stock is required to report the preferred stock as a *liability*. If both the maturity date and redemption price are fixed, at the end of each year the corporation reports the liability at the present value of the amount to be paid at settlement. To determine the present value, the corporation uses the implicit interest rate when it issued the redeemable preferred stock. It records interest expense for the change in the present value during the year. If either the maturity date or the redemption price is not known, at the end of each year the corporation reports the liability at its current market value. It records interest expense for the change in market value during the year.¹⁸ The corporation is also required to disclose the redemption features, shares issued and redeemed, and other related issues in the notes to its financial statements.¹⁹ Preferred stock that is redeemable at the option of the holder is *not* reported as a liability. It is reported in stockholders' equity.

Preference in Liquidation

If a corporation is liquidated, the preferred stock contract usually allows the preferred stockholders **preference** over the common stockholders (but secondary to the creditors) with respect to the corporate assets. The preference is typically expressed as a percentage of (or equal to) the par value. It also frequently requires the payment of dividends in arrears. This liquidation preference is important to external users. A corporation discloses this information either parenthetically in its stockholders' equity section or in the notes accompanying its financial statements.²⁰



18. "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity," *FASB Statement of Financial Accounting Standards No. 150* (Norwalk, Conn.: FASB, 2003) par. 18 and 22.

19. "Disclosure of Information about Capital Structure," *FASB Statement of Financial Accounting Standards No. 129* (Norwalk, Conn.: FASB, 1997) par. 4, 5, and 8.

20. *Ibid.*, par. 6.

Voting Rights

In exchange for the previously discussed provisions, the preferred stock contract often states that the holder has **no voting rights**. Otherwise, the preferred stockholder has full voting rights.

CONTRIBUTED CAPITAL SECTION

A corporation includes the results of the various transactions involving its issuance of capital stock in the Contributed Capital (frequently called Paid-in Capital) section of stockholders' equity on its balance sheet. Contributed capital is usually separated into the par (or stated) value of the outstanding capital stock (or, in the case of no-par stock, the total proceeds received from the stock issue) and the additional paid-in capital arising from the different transactions. A corporation's contributed capital section may include:

1. Capital stock
 - a. Par value of preferred stock
 - b. Par value of common stock
 - c. Common (or preferred) stock subscribed
 - d. Stock warrants
 - e. Stock dividends to be distributed (discussed in Chapter 17)
2. Additional paid-in capital
 - a. On preferred stock
 - b. On common stock
 - c. From other sources (e.g., stock splits, preferred stock conversions, treasury stock)

In addition to reporting the specific amounts for the Capital Stock and Additional Paid-in Capital accounts, a corporation is required to disclose certain other information. For each class of stock this disclosure includes the par value and the number of shares authorized, issued, and outstanding. The FASB also requires certain disclosures.²¹ These include the preferred stock dividend rate, preferred stock characteristics, any dividends in arrears, and any relevant details relating to the common stock. A corporation may present this information parenthetically adjacent to each capital stock account or in a note to its financial statements. As we discuss in the next chapter, a schedule summarizing the changes in these various components of contributed capital is also an integral part of a corporation's financial statements.

To illustrate the preceding contributed capital framework, Example 16-4 presents the Contributed Capital section of a hypothetical company, Newsom Corporation.

10 Know the components of contributed capital.



EXAMPLE 16-4 Newsom Corporation

**Contributed Capital
December 31, 2007**

Stockholders' Equity

Contributed Capital	
Preferred stock, \$100 par (9%, cumulative, convertible, 10,000 shares authorized, 4,300 shares issued and outstanding)	\$ 430,000
Common stock, \$5 par (80,000 shares authorized, 32,800 shares issued and outstanding)	164,000
Common stock subscribed, \$5 par (3,600 shares at a subscription price of \$34 per share)	18,000
Common stock option warrants	23,000
Additional paid-in capital on preferred stock	107,500
Additional paid-in capital on common stock	590,400
Additional paid-in capital from conversion of preferred stock into common stock	10,100
Total Contributed Capital	\$1,343,000

Real Report 16-2 shows the contributed capital of **Alcoa, Inc.** on its comparative balance sheets dated December 31, 2004 and 2003, and the accompanying Note M (in part), which describes the capital stock.

21. *Ibid.*, par. 4-7.



Real Report 16-2 Contributed Capital

ALCOA AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEET (in part):

Shareholders' Equity (in part):

(in millions)	December 31	
	2004	2003
Preferred stock (R)	\$ 55	\$ 55
Common stock (R)	925	925
Additional capital	5,775	5,831

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (in part):

R. PREFERRED AND COMMON STOCK

Preferred Stock. Alcoa has two classes of preferred stock. Serial preferred stock has 546,024 shares authorized and outstanding, with a par value of \$100 per share and an annual \$3.75 cumulative dividend preference per share. Class B serial preferred stock has 10 million shares authorized (none issued) and a par value of \$1 per share.

Common Stock. There are 1.8 billion shares authorized at a par value of \$1 per share. As of December 31, 2004, 136.6 million shares of common stock were reserved for issuance under the long-term stock incentive plans.

Questions:

1. How many classes of preferred stock does Alcoa have? What is the par value per share of each class and how many shares of each class are outstanding?
2. What is the par value per share of the common stock?
3. How many shares of common stock were reserved on December 31, 2004, and for what purpose?

This concludes the discussion of the major items affecting contributed capital. We now turn to a discussion of accounting for the reacquisition of capital (treasury) stock, which may or may not affect contributed capital.

TREASURY STOCK (CAPITAL STOCK REACQUISITION)

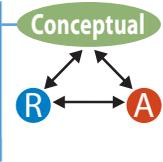
In most states a corporation may reacquire its own previously issued capital stock, after which it may formally retire (cancel) the stock or hold the stock in its corporate treasury. **Treasury stock is a corporation's own capital stock that (1) has been fully paid for by stockholders, (2) has been legally issued, (3) is reacquired by the corporation, and (4) is being held by the corporation for future reissuance.** A corporation typically pays cash to reacquire its capital stock, but it may exchange other assets. Treasury stock may also be donated to the corporation by its stockholders.

A corporation may acquire treasury stock for various reasons:

- to use for share option, bonus, and employee purchase plans;
- to use in the conversion of convertible preferred stock or bonds;
- to use excess cash;
- to use in acquiring other companies;
- to reduce the number of shares outstanding and thereby increase the earnings per share and help maintain or increase the market price of its stock;
- to reduce the number of shares held by hostile shareholders and thereby reduce the likelihood of being acquired by another company; and
- to use for the issuance of a stock dividend.

11 Understand the accounting for treasury stock.

Treasury stock is clearly *not* an asset of a corporation; the corporation cannot own itself. A corporation cannot recognize a gain or loss when reacquiring its own stock. This restricts a corporation from influencing its net income by buying and selling its own stock. Consequently, a corporation treats treasury stock as a reduction of its stockholders' equity as we will discuss later.



To ensure that treasury stock is handled in the best interests of the stockholders, states have passed laws regulating corporate activities as follows:

- A corporation must acquire treasury stock for some legitimate corporate purpose.
- Treasury stock does not vote, has no preemptive rights, ordinarily cannot participate in any type of dividends, and has no rights at liquidation.
- Treasury stock does participate in stock splits, because the par value must be reduced.
- The acquisition of treasury stock does not formally reduce a corporation's legal capital.
- The amount that a corporation may pay to acquire treasury stock is usually limited to the balance in its retained earnings (and perhaps additional paid-in capital) so that its legal capital is not impaired.
- Treasury stock transactions may reduce retained earnings but may never increase retained earnings.
- A corporation ordinarily must restrict the amount of retained earnings available for dividends by the cost of the treasury stock held so that the payment of dividends does not reduce contributed capital.

The original issuance of capital stock causes an increase in a corporation's stockholders' equity and the number of shares outstanding. Its reacquisition has an opposite effect. The corporation's stockholders' equity (and the number of shares outstanding) is reduced. Reacquired capital stock may be formally retired. The shares then revert to authorized but unissued shares, and the corporation's legal capital is appropriately reduced. If the shares are *not* retired, the corporation may reissue the treasury stock at a price above or below the acquisition price, or the par value. Ordinarily, the board of directors does not need to consider the par value when treasury stock is reissued because it met the legal capital requirements when it originally issued the stock. Upon reissuance, the corporation again increases its stockholders' equity and the number of shares outstanding.

A corporation may account for treasury stock transactions by either (1) the cost method or (2) the par (or stated) value method. Both are generally accepted accounting principles, although they affect the various components of stockholders' equity differently. Because the cost method is used by 96% of companies that hold treasury stock²² we discuss and illustrate this method in the following section. We briefly discuss the par value method in a later section.

Cost Method

When a corporation uses the cost method, it treats the treasury stock "event" as though it consists of two parts: (1) the purchase (reacquisition) of the treasury stock that starts the event, and (2) the reissuance that completes the event. Under this method, when the corporation reacquires its capital stock, it assumes it will reissue rather than retire the stock. Therefore, it debits a temporary account entitled Treasury Stock (and credits Cash, or other appropriate asset account) for the *cost* of the shares. A separate Treasury Stock account should be established for each class of stock (common and preferred). During the period between reacquisition and reissuance, the corporation treats the Treasury Stock account as a contra-stockholders' equity account. This account represents a temporary reduction in its stockholders' equity, as we show later in the chapter.

When the corporation reissues the treasury shares, it reduces (credits) the Treasury Stock account for the *cost* of the shares reissued and records the difference between the cash received and this cost as an adjustment of stockholders' equity. If the cash exceeds

22. *Accounting Trends and Techniques* (New York: AICPA, 2004, p. 322) reports that of the companies disclosing treasury stock holdings in common stock, 96% used the cost method and only 4% used the par or stated value method.

the cost of the reissued treasury stock, it records the excess as an increase in additional paid-in capital from the treasury stock transaction. If the cash is less than the cost, it records the “deficit” as a reduction of additional paid-in capital related to previous issuances or retirements of treasury stock. If this additional paid-in capital is insufficient to absorb the deficit, the corporation records the remainder as a reduction in retained earnings.²³ Since a corporation may reacquire treasury stock at different dates and at different costs, it may use the specific identification, FIFO, or average cost methods to record the reduction in the Treasury Stock account when the stock is reissued.

Example: Treasury Stock Assume that Ball Corporation is authorized to issue 20,000 shares of \$10 par common stock and enters into several treasury stock transactions. These transactions (1 through 5) are listed in Example 16-5, followed by the journal entries Ball makes to record the transactions. In journal entry 4, note that the treasury stock was reissued at less than par. However, this is not relevant because the legal capital requirements were met in journal entry 1. Only the *cost* of the treasury stock is used to determine the impact on additional paid-in capital.²⁴

EXAMPLE 16-5 Journal Entries for Treasury Stock: Cost Method

1. Issuance of 6,000 shares of \$10 par common stock for \$12 per share:

Cash	72,000	
Common Stock, \$10 par		60,000
Additional Paid-in Capital on Common Stock		12,000

2. Reacquisition of 1,000 shares of common stock at \$13 per share:

Treasury Stock	13,000	
Cash		13,000

3. Reissuance of 600 shares of treasury stock at \$15 per share:

Cash	9,000	
Treasury Stock (600 shares at \$13 per share)		7,800
Additional Paid-in Capital from Treasury Stock		1,200

4. Reissuance of another 200 shares of treasury stock at \$8 per share:

Cash	1,600	
Additional Paid-in Capital from Treasury Stock	1,000	
Treasury Stock (200 shares at \$13 per share)		2,600

5. Reissuance of another 100 shares of treasury stock at \$10 per share:

Cash	1,000	
Additional Paid-in Capital from Treasury Stock	200	
Retained Earnings	100	
Treasury Stock (100 shares at \$13 per share)		1,300

23. “Status of Accounting Research Bulletins”, *APB Opinion No. 6* (New York: AICPA, 1965), par. 12.

24. Some corporations prepare a slightly different journal entry from that shown in transaction 4 when they reissue treasury stock at substantially less than cost. This involves reducing the additional paid-in capital from all the *original* issuances of the same class of stock by an average pro rata amount per share. Any deficit below the average original issuance price is then debited to retained earnings. For example, recall from transaction 1 that the original issuance price of \$12 per share resulted in a \$2 per share increase in additional paid-in capital (because this is the only issuance, the \$2 excess per share is also the *average* excess per share). Since the reissuance price for \$8 per share in transaction 4 is \$5 below the per share cost of the treasury stock, a corporation might record transaction 4 as follows:

Cash	1,600	
Additional Paid-in Capital on Common Stock (\$2 per share)	400	
Retained Earnings (\$3 per share)	600	
Treasury Stock (200 shares at \$13)		2,600

After journal entry 4 the additional paid-in capital related to common treasury stock transactions is \$200 (\$1,200 – \$1,000). In transaction 5, Ball Corporation reissues 100 shares of treasury stock at \$10 per share. When Ball records this transaction, it reduces the Additional Paid-in Capital from Treasury Stock account to zero and records the remaining deficit as a reduction of Retained Earnings (as a kind of dividend). The accounting for no-par treasury stock follows the same procedures. ♦

Balance Sheet Presentation

If a corporation holds treasury stock on the balance sheet date, it deducts the Treasury Stock account from the total of contributed capital, retained earnings, and accumulated other comprehensive income (if any). For example, assume that the Ball Corporation prepares its stockholders' equity section immediately after recording transactions 1–5 of the preceding example (assume further that retained earnings is \$40,000 *prior to* recording any treasury stock transactions). We show this stockholders' equity in Example 16-6. Note that state laws generally require retained earnings to be restricted by the amount of the cost of the treasury stock, as we show in Example 16-6. We discuss restrictions of retained earnings in Chapter 17.

EXAMPLE 16-6 Treasury Stock and Stockholders' Equity

Stockholders' Equity	
Contributed Capital	
Common stock, \$10 par (20,000 shares authorized, 6,000 shares issued, of which 100 are being held as treasury stock)	\$ 60,000
Additional paid-in capital on common stock	12,000
Total contributed capital	\$ 72,000
Retained earnings (see note)	39,900
Accumulated other comprehensive income	10,000
Total contributed capital, retained earnings, and accumulated other comprehensive income	\$ 121,900
Less: Treasury stock (100 shares at cost)	(1,300)
Total Stockholders' Equity	<u>\$ 120,600</u>

Note: Retained earnings are restricted regarding dividends in the amount of \$1,300, the cost of the treasury stock.

Acquisition at Greater Than Market Value

Over the years, there have been numerous "takeover" attempts by hostile stockholders. Their goal is to acquire a sufficient number of shares of a company's common stock to exercise control over its activities. To thwart these attempts, some companies have reacquired their common stock from these stockholders at prices in excess of the fair value of the stock. This excess is often referred to as "greenmail." In return for this greenmail, the selling stockholders may agree to abandon certain acquisition plans, to restrict purchases of additional shares, or to other limitations. When this occurs, a question arises as to how to account for the acquisition of this treasury stock and the related greenmail.

In a situation where a corporation pays more than the fair value to acquire treasury stock, *FASB Technical Bulletin 85-6* requires that the corporation record the treasury stock at its fair value. The difference between the price paid to acquire the treasury stock and the fair value is recorded as an expense. The corporation does *not* report this expense as an extraordinary item on its income statement.²⁵ The corporation records any later reissuances in the usual manner.



25. *FASB Technical Bulletin No. 85-6* (Stamford, Conn.: FASB, 1985), par. 3–7.

Donated Treasury Stock



Stockholders sometimes may donate treasury stock to a corporation, which the corporation then reissues. This usually occurs when the corporation needs more cash without increasing the number of outstanding shares. According to *FASB Statement No. 116*, a corporation records a donation from a nongovernmental unit (e.g., stockholders) as a gain in the period received, based on the fair value of the exchange.²⁶ On the date of the donation the corporation debits the Treasury Stock account and credits a gain for the fair value of the stock. It reports the gain in the Other Items section of its income statement. When the stock is reissued, it records the transaction in the usual manner.

A corporation must adhere to state laws regarding donated treasury stock. Many of these laws were established to discourage what is referred to as *treasury stock subterfuge*, an activity that occurred in times of high par values and resulted in *watered stock* (discussed earlier). A corporation would issue an excess number of shares of par value stock in exchange for a nonmonetary asset. A limited number of shares then would be donated back to the corporation and reissued at a price less than par, thereby avoiding the contingent liability on the part of the stockholder. However, such subterfuges are unlikely in today's financial world with its legal restrictions.

Retirement of Treasury Stock

Occasionally, a corporation's board of directors may decide to retire treasury stock. As a result, the corporation's legal capital is reduced. In the journal entry a corporation makes to record the retirement, it offsets the cost of the retired shares in the Treasury Stock account against both the par value in the Capital Stock account and a pro rata share from the Additional Paid-in Capital (on common or preferred) account. Any difference between these latter amounts and the cost of the treasury stock either is debited to Retained Earnings or credited to an Additional Paid-in Capital from Treasury Stock account. For example, assume the Ball Corporation retires the remaining 100 shares of treasury stock from the previous example. The journal entry to record the retirement is:

Common Stock, \$10 par	1,000	
Additional Paid-in Capital on Common Stock	200*	
Retained Earnings	100	
Treasury Stock (100 shares at \$13 per share)		1,300

$$*\frac{\$12,000}{6,000} \times 100 \text{ shares} = \$200$$

Note that the pro rata reduction per share in additional paid-in capital on common stock was computed based on the current balance in Additional Paid-in Capital on Common Stock (\$12,000) divided by the number of shares *issued* (6,000). After retirement, it accounts for the shares as authorized but unissued stock. Also note that when a corporation retires treasury stock, retained earnings is no longer restricted so the corporation eliminates the related note describing the restriction.

Par Value Method

If a corporation uses the par value method to account for treasury stock, it treats the *reacquisition* of capital stock as an event entirely separate from the stock's *reissuance*. When the corporation reacquires its capital stock, it debits the Treasury Stock (either common or preferred) account for the *par* value of the stock and debits the original Additional Paid-in Capital (on common or preferred) account for an amount based on the average price received from all the *original* issuances of the stock. If the reacquisition

26. "Accounting for Contributions Received and Contributions Made," *FASB Statement of Financial Accounting Standards No. 116* (Norwalk, Conn.: FASB, 1993), par. 8.

price is less than the original average issuance price, it credits the excess to a new Additional Paid-in Capital from Treasury Stock account. If the reacquisition price is more than the original average issuance price, it first records the deficit as a reduction of Additional Paid-in Capital from Treasury Stock (if any) and then as a reduction of Retained Earnings (as a kind of dividend paid upon reacquisition).

During the period between reacquisition and reissuance, the corporation treats the Treasury Stock account as a contra-capital stock account. Since fewer shares are outstanding, it deducts the Treasury Stock account from the Capital Stock (common or preferred) account to reduce the total par value.

When the corporation reissues the treasury stock, it increases its contributed capital (and the number of outstanding shares) by crediting the Treasury Stock account at *par* and crediting the existing Additional Paid-in Capital (on common or preferred) account for the excess of the proceeds over the par value. If the cash received is less than par, it reduces the Additional Paid-in Capital account. If no additional paid-in capital exists related to this class of stock, it debits Retained Earnings. A Discount on Capital Stock account is *not* debited because no contingent liability exists on the part of the new stockholders.

If the corporation retires treasury stock, it debits the capital stock account and credits the treasury stock account for the par value of the retired stock. Because the par value method is not widely used, we do not show an example.

CAPITAL STOCK TRANSACTIONS AND THE STATEMENT OF CASH FLOWS

A company reports the proceeds it receives from the issuance of common stock or preferred stock (or the reissuance of treasury stock) as a cash inflow in the financing activities section of its statement of cash flows. A company reports the cash it pays to purchase treasury stock or recall preferred stock as cash outflow in the financing activities section of its statement of cash flows. If a company has recorded compensation expense in regard to a compensatory share option plan, the amount is a non-cash expense. Therefore, the company adds this amount as an adjustment of net income under the indirect method in the operating activities section on its statement of cash flows. If a company converts preferred stock in common stock, it discloses this transaction as a non-cash financing activity.



SECURE YOUR KNOWLEDGE 16-4

- Preferred stock has several features including (1) preference as to dividends, (2) accumulation of dividends (dividends in arrears), (3) participation in excess dividends, (4) convertibility into common stock (using the book value or market value method), (5) attachment of stock warrants (requiring the allocation of proceeds between the stock and the warrants based on fair value), (6) callability by the corporation, (7) mandatory redemption at a future date (requires classification of the preferred stock as a liability), (8) preference in the company's net assets in the event of a liquidation, and (9) lack of voting rights.
- Treasury stock, resulting from a company reacquiring its own shares, can be accounted for using either the cost method or the par value method.
 - Under the cost method:
 - ◆ The reacquired shares (reported as a reduction of stockholders' equity) are recorded at cost, with any later reissuance accounted for as either:
 - a credit to Additional Paid-in Capital from Treasury Stock (if the proceeds from the reissuance exceed the cost of the treasury stock) or

(continued)

- a debit to Additional Paid-in Capital from Treasury Stock (if the cost exceeds the proceeds from the reissuance of the treasury stock), with any excess deficit recorded as a reduction of Retained Earnings.
- ◆ The retirement of treasury stock involves a reduction in the legal capital of the company.
- Under the par value method, the treasury stock account (reported as a contra-capital account) is recorded at par value with any reissuance of treasury stock accounted for in a manner similar to that of an original issuance of stock.



LINK TO RATIO ANALYSIS

One key ratio that is used to evaluate a company's profitability is the return on stockholders' equity (ROE). This ratio shows how many dollars of net income were earned for every dollar invested by the owners. While the overall ROE ratio can be useful, many financial statement users prefer a more detailed examination of the components of this ratio. This analysis is commonly known as the DuPont model and enables the analyst to "decompose" the ROE ratio into three major components as shown below:

$$\text{ROE} = \text{Profitability} \times \text{Activity} \times \text{Stability} = \frac{\text{Net Income}}{\text{Net Sales}} \times \frac{\text{Net Sales}}{\text{Average Assets}} \times \frac{\text{Average Assets}}{\text{Average Stockholder's Equity}}$$

The formula above provides the financial statement analyst insights into whether a change in ROE is caused by a change in profitability (income/sales), a change in activity or turnover (sales/average assets), or a change in stability or financial leverage (average assets/average equity).

Below is information obtained from the 2004 annual report of **Starbucks Corporation**:

(in millions)	2004	2003
Average Assets	\$3,084,541	\$2,514,448
Average Stockholders' Equity	2,272,664	1,892,247
Net Sales	5,294,247	4,075,522
Net Income	390,559	266,848

Using the formula above, Starbucks' ROE for 2004 and 2003 can be computed as:

$$2004: \text{ROE} = \frac{\$390,559}{\$5,294,247} \times \frac{\$5,294,247}{\$3,084,541} \times \frac{\$3,084,541}{\$2,272,664} = 0.074 \times 1.716 \times 1.357 = 0.17$$

$$2003: \text{ROE} = \frac{\$266,848}{\$4,075,522} \times \frac{\$4,075,522}{\$2,514,448} \times \frac{\$2,514,448}{\$1,892,247} = 0.065 \times 1.621 \times 1.329 = 0.14$$

The above analysis indicates that while Starbucks' ROE has increased by approximately 3%, Starbucks' financial leverage (the degree to which assets are internally financed) has remained relatively steady (1.357 vs. 1.329). Therefore, any increase in ROE is due primarily to the fact that Starbucks was more successful in controlling cost and expenses relative to sales (profitability measure increased from 0.065 to 0.074) and was more efficient in using its assets to generate sales (asset turnover increased from 1.621 to 1.716).

SUMMARY

At the beginning of the chapter, we identified several objectives you would accomplish after reading the chapter. The objectives are listed below, each followed by a brief summary of the key points in the chapter discussion.

1. **Explain the corporate form of organization.** A corporation is a legal entity of a particular state. A corporation's articles of incorporation states the types, par value, and number of shares of capital stock to be issued. A corporation's owners (stockholders) have limited liability. A corporation may enter into contracts, hold property, sue and be sued, and continue in perpetuity.
2. **Know the rights and terms that apply to capital stock.** Each stockholder of a corporation generally has the right to: (1) share in the corporation's profits by receiving dividends, (2) elect directors and establish corporate policies, (3) maintain a proportionate interest in the ownership if additional shares are issued (preemptive right), and (4) share in the distribution of assets if the corporation is liquidated. The terms that apply to capital stock include authorized, issued, and outstanding capital stock, par (or stated) value, and additional paid-in capital.
3. **Account for the issuance of capital stock.** When a corporation issues capital stock for cash, it debits cash for the amount received, credits capital stock for the par value, and credits additional paid-in capital for the difference. It modifies this entry accordingly for the issuance of stock subscriptions, for combined sales of stock, and for nonmonetary issuances of stock.
4. **Describe a compensatory share option plan.** A compensatory stock option plan is intended to provide additional compensation to selected employees within the corporation. The employees receive shares of stock, share options, or other equity instruments in exchange for their services.
5. **Recognize compensation expense for a compensatory share option plan.** Under the fair value method, the total compensation cost is the total fair value of the share options that actually become vested. Under this method, a corporation recognizes the total compensation cost as compensation expense over the service period using the straight-line method, making adjustments each year for any changes in circumstances or changes in estimates.
6. **Account for a fixed compensatory share option plan.** Under a fixed plan, a corporation estimates the total compensation cost by multiplying the fair value per option times the number of options granted times the estimated retention rate. It allocates the total compensation cost over the service period, adjusting for changes in the estimated turnover rate and for the number of options that actually vest.
7. **Account for a performance-based compensatory share option plan.** Under a performance-based plan, a corporation estimates the total compensation cost by multiplying the fair value per option times the number of options expected to be granted times the estimated retention rate. It allocates the total compensation cost over the service period, adjusting for changes in estimates and for the number of options that actually vest.
8. **Account for share appreciation rights.** Under a SAR plan, a corporation estimates the total compensation cost at *the end of each year* by multiplying the fair value per SAR times the number of SARs expected to be exercised. It allocates the total compensation cost over the service period, adjusting for changes in estimates. It then continues to make adjustments to compensation expense each year until the SARs are exercised.
9. **Describe the characteristics of preferred stock.** Preferred stock may have (1) a preference as to dividends, (2) accumulation of dividends, (3) participation in excess dividends, (4) convertibility into common stock, (5) attachment of stock warrants (rights), (6) callability by the corporation, (7) redemption at a future maturity date, (8) preference as to assets if the corporation is liquidated, and (9) lack of voting rights.
10. **Know the components of contributed capital.** Contributed capital usually includes capital stock (par value of preferred and common stock) and additional paid-in capital (on preferred and common stock).
11. **Understand the accounting for treasury stock.** Treasury stock is a corporation's own capital stock that it has reacquired. Treasury stock is not an asset; a corporation cannot recognize a gain or loss when reacquiring (or reissuing) its own stock. Under the cost method (the most common method), when a corporation acquires treasury stock, it debits the treasury stock account for the amount paid. When it reissues treasury stock, it debits cash for the proceeds received, credits the treasury stock account for the cost, and credits (or debits) additional paid-in capital from treasury stock for the difference.

ANSWERS TO REAL REPORT QUESTIONS

Real Report 16-1 Answers

1. During 2004, 7,727,000 options were exercised at a weighted average exercise price of \$20.95. If these options were exercised when the share price was \$49.41, these

employees made a "profit" of \$28.46 per share (\$49.41 – \$20.95) or \$219,910,000 (7,727,000 shares × \$28.46 profit per share).

- At the end of fiscal 2004, 22,102,000 options were currently exercisable at an average price of \$28.79, and Target has unissued common shares of 51,560,249 reserved for future grants under its share option plan.
- Under the fair value method, Target recognizes total compensation expense on a straight-line basis over a four-year vesting period. At the end of fiscal 2004, Target reported \$104 million of unrecognized compensation expense which represents the portion of total compensation expense that has not yet vested. This compensation cost is expected to be recognized over the subsequent 1.5 years.

Real Report 16-2 Answers

- Alcoa has two classes of preferred stock. The first class of preferred stock has 546,024 shares authorized and outstanding with a par value of \$100 per share. The second class of preferred stock (Class B) has 10 million shares authorized but no shares are issued. Its par value is \$1 per share.
- The common stock has a par value of \$1 per share.
- On December 31, 2004, 136.6 million shares of common stock were reserved for issuance. This stock is reserved to meet Alcoa's commitment to its long-term stock incentive plans.

QUESTIONS

Q16-1 What information is contained in a corporation's articles of incorporation?

Q16-2 What is the difference between (a) a public and private corporation, (b) an open and closed corporation, and (c) a domestic and foreign corporation (as viewed by a particular state)?

Q16-3 What is (a) a *stock certificate*, (b) a *stockholders' ledger*, (c) a *stock transfer journal*, and (d) a *transfer agent*?

Q16-4 List the various rights of a stockholder. Which do you consider to be the most important?

Q16-5 What is the meaning of the following terms: (a) *authorized capital stock*, (b) *issued capital stock*, (c) *outstanding capital stock*, and (d) *treasury stock*? What is the difference between the number of issued and outstanding capital shares?

Q16-6 What is a corporation's *legal capital* and why is it important?

Q16-7 How is a corporation's legal capital determined, assuming its capital stock has a par value, a stated value, or no par value?

Q16-8 What are the three components and the basic framework of stockholders' equity?

Q16-9 How does preferred stock differ from common stock?

Q16-10 What amount of the proceeds from the issuance of no-par, no-stated-value stock is recorded in the Capital Stock account?

Q16-11 What is a *stock subscription*? How does a corporation report the accounts Subscriptions Receivable and Preferred Stock Subscribed on its balance sheet? Why?

Q16-12 What alternatives are possible if a subscriber defaults on a stock subscription? How would you determine which alternative to use?

Q16-13 How would you record the proceeds received from the combined issuance by a corporation of shares of common stock with shares of preferred stock?

Q16-14 If a corporation issues capital stock for an asset other than cash, what amount would you use to record the transaction?

Q16-15 When do (a) watered stock or (b) secret reserves result from the recording of a nonmonetary issuance of stock? What impact does each have on a corporation's balance sheet?

Q16-16 What is a *stock split* and a *disproportionate stock split*? How do they affect each element of a corporation's stockholders' equity?

Q16-17 (a) What are the criteria for a noncompensatory share option plan? (b) How does a compensatory share option plan differ from a noncompensatory plan? (c) What is the intent of a noncompensatory plan? Of a compensatory plan?

Q16-18 Under the fair value method, how does a corporation determine the total compensation cost for a compensatory share option plan? How does it recognize this amount as compensation expense?

Q16-19 What are share appreciation rights? Why are they advantageous to an employee?

Q16-20 Define the following terms regarding preferred stock: (a) *dividend preference*, (b) *cumulative*, (c) *participating*, (d) *convertible*, (e) *warrants*, (f) *callable*, and (g) *redeemable*.

Q16-21 Why is a preferred stock similar to a long-term bond? Why is it similar to common stock?

Q16-22 What are the two segments of a corporation's contributed capital and what might be included in each segment?

Q16-23 (a) What is *treasury stock*? (b) Why might a corporation acquire treasury stock?

Q16-24 If a corporation uses the cost method to account for treasury stock, the treasury stock "event" is treated as though it consists of two elements; if it uses the par value method, the reacquisition and reissuance transactions are viewed as separate events. Explain the accounting differences resulting from these concepts.

Q16-25 How does a corporation report the Treasury Stock account under the cost method of accounting for treasury stock? Under the par value method?

Q16-26 What accounting procedures are involved under the cost method when a corporation retires treasury stock?

MULTIPLE CHOICE (AICPA Adapted)

Select the best answer for each of the following.

M16-1 On July 14, JX Corporation exchanged 1,000 shares of its \$8 par value common stock for a plot of land. JX's common stock is listed on the NYSE and traded at an average price of \$21 per share on July 14. The land was appraised by independent real estate appraisers on July 14 at \$23,000. As a result of this exchange, JX's additional paid-in capital will increase by

a. \$0	c. \$13,000
b. \$8,000	d. \$15,000

M16-2 When treasury stock is purchased for cash at more than its par value, what is the effect on total stockholders' equity under each of the following methods?

	Cost Method	Par Value Method
a.	Increase	Increase
b.	Decrease	Decrease
c.	No effect	Decrease
d.	No effect	No effect

M16-3 On July 9, 2007 Metaro Corporation purchased for \$108,000, 2,000 shares of Jean Corporation's newly issued 6% cumulative \$20 par value preferred stock. Each share also had one stock warrant attached, which entitled the holder to acquire, at \$19, one share of Jean \$10 par value common stock for each two warrants held. On July 10, 2007 the market price of the preferred stock (without warrants) was \$50 per share and the market price of the stock warrants was \$10 per warrant. On September 3, 2007 Metaro sold all the stock warrants for \$19,800. What should be the gain on the sale of the stock warrants?

a. \$0	c. \$1,800
b. \$800	d. \$9,800

M16-4 What is the most likely effect of a stock split on the par value per share and the number of shares outstanding?

	Par Value Per Share	Number of Shares Outstanding
a.	Decrease	Increase
b.	Decrease	No effect
c.	Increase	Increase
d.	No effect	No effect

M16-5 Landy Corporation was organized on January 2, 2007 with authorized capital of 100,000 shares of \$10 par value common stock. During 2007 Landy had the following transactions:

Jan. 12	Issued 20,000 shares at \$12 per share
Apr. 23	Issued 1,000 shares for legal services when the market price was \$14 per share

What should be the amount of additional paid-in capital at December 31, 2007?

- | | |
|-------------|-------------|
| a. \$4,000 | c. \$40,000 |
| b. \$14,000 | d. \$44,000 |

M16-6 During 2007 Bradley Corporation issued for \$110 per share, 5,000 shares of \$100 par value convertible preferred stock. One share of preferred stock can be converted into three shares of Bradley's \$25 par value common stock at the option of the preferred shareholder. On December 31, 2008 all of the preferred stock was converted into common stock. The market value of the common stock at the conversion date was \$40 per share. What amount should be credited to the common stock account on December 31, 2008?

- | | |
|--------------|--------------|
| a. \$375,000 | c. \$550,000 |
| b. \$500,000 | d. \$600,000 |

M16-7 The Amlin Corporation was incorporated on January 1, 2007, with the following authorized capitalization:

- 20,000 shares of common stock, no par value, stated value \$40 per share
- 5,000 shares of 5% cumulative preferred stock, par value \$10 per share

During 2007 Amlin issued 12,000 shares of common stock for a total of \$600,000 and 3,000 shares of preferred stock at \$16 per share. In addition, on December 21, 2007 subscriptions for 1,000 shares of preferred stock were taken at a purchase price of \$17. These subscribed shares were paid for on January 4, 2008. What should Amlin report as total contributed capital on its December 31, 2007 balance sheet issued on February 1, 2008?

- | | |
|--------------|--------------|
| a. \$520,000 | c. \$665,000 |
| b. \$648,000 | d. \$850,000 |

M16-8 On January 1, 2007 Stoner Corporation granted compensatory share options to key employees for the purchase of shares of the company's common stock at \$25 per share. The options are intended to compensate employees for the next two years. The options are exercisable within a four-year period beginning January 1, 2009 by grantees still in the employ of the company. The fair value of each option was \$7 on the date of grant. Stoner expects to distribute 10,000 shares of treasury stock when options are exercised. The treasury stock was acquired by Stoner during 2006 at a cost of \$28 per share and was recorded under the cost method. How much should Stoner charge to compensation expense for the year ended December 31, 2007?

- | | |
|-------------|-------------|
| a. \$70,000 | c. \$30,000 |
| b. \$35,000 | d. \$15,000 |

M16-9 When treasury stock accounted for by the cost method is subsequently sold for more than its purchase price, the excess of the cash proceeds over the carrying value of the treasury stock should be recognized as an

- Extraordinary gain
- Increase in additional paid-in capital
- Income from continuing operations
- Increase in retained earnings

M16-10 Preferred stock that may be retired by the corporation at its option is known as

- Convertible
- Redeemable
- Cumulative
- Callable

EXERCISES

E16-1 Par Value and No-Par Stock Issuance Cutler Corporation is authorized to issue 10,000 shares of common stock. It sells 6,000 shares at \$19 per share.

Required

Record the sale of the common stock, given the following independent assumptions:

- The stock has a par value of \$10 per share.
- The stock is no-par stock, but the board of directors has assigned a stated value of \$8 per share.
- The stock has no par and no stated value.

E16-2 Combined Sale of Stock Estes Company issues 300 shares of \$50 par preferred stock and 1,000 shares of \$10 par common stock in a “package” sale. Total proceeds received amount to \$39,000.

Required

Record the transaction for each independent assumption shown:

- The common stock has a current market value of \$19 per share; the current market value of preferred stock is not known.
- The common stock and the preferred stock have a current market value per share of \$22 and \$60 respectively.

E16-3 Sale of Stock with Bonds Kelly Company issues 12% bonds with a face value of \$10,000 and 600 shares of \$10 par common stock in a combined sale, receiving total proceeds of \$23,000.

Required

Record the transaction for each independent assumption shown:

- The common stock has a current market value of \$21 per share; the market value of the bonds is not known.
- The common stock has a current market value of \$24.50 per share; the bonds are selling at 98.

E16-4 Issuance of Stock for Land The Putt Company issues 500 shares of \$100 preferred stock for land. This land was carried on the seller’s books for \$40,000.

Required

- Prepare the journal entry to record the acquisition of the land for each of the following independent situations:
 - The preferred stock is currently selling for \$120 per share. No appraisal is available on the land.
 - The land is appraised at \$65,000. There have been no recent sales of the preferred stock.
 - The preferred stock is currently selling for \$125 per share. The land is appraised at \$64,000.
- For Requirement 1(c), discuss why you chose the value used in the journal entry.

E16-5 Stock Subscription On February 3 the Teel Corporation enters into a subscription contract with several subscribers for 5,000 shares of \$10 par common stock at a price of \$16 per share. The contract requires a down payment of 25%, with the remaining balance to be paid on May 3. The stock will be issued to each subscriber upon full payment.

Required

Prepare journal entries to record the following:

- The February 3 receipt of the down payment and signing of the contract.
- The May 3 receipt of the remaining balance from subscribers to 4,000 shares. The market price is currently \$17 per share.
- The default of a subscriber to 1,000 shares. These shares are sold on the open market for \$17 per share on May 4, and the down payment is returned to the subscriber.

E16-6 Stock Split Holton Company currently has 9,000 shares of \$12 par common stock outstanding that had been issued at an average price of \$60 per share. It declares a three-for-one stock split.

Required

Prepare whatever entry is necessary to record the stock split, assuming the following independent alternatives:

1. The par value is reduced to \$4 per share.
2. The par value is reduced to \$6 per share.
3. The par value is reduced to \$3 per share.

E16-7 Fixed Compensatory Share Option Plan McEnroe Company has 20 executives to whom it grants compensatory share options on January 1, 2007. At that time it grants each executive the right to purchase 100 shares of its \$5 par common stock at \$40 per share after a three-year service period. The value of each option is estimated to be \$10.25 on the grant date. Based on its average employee turnover rate each year, McEnroe expects that two executives will not vest in the plan. At the end of 2009 McEnroe confirms that the actual turnover was the same as expected. On January 5, 2010, three executives exercise their options.

Required

Prepare the journal entries of McEnroe Company for 2007 through 2010 in regard to its compensatory share option plan (round all calculations to the nearest whole number).

E16-8 Fixed Compensatory Share Option Plan On January 1, 2007 Sampress Company adopts a compensatory share option plan for its 50 executives. The plan allows each executive to purchase 200 shares of its \$2 par common stock for \$30 per share after completing a three-year service period. Sampress estimates the value of each option to be \$14.00 on the grant date. It has had a 4% employee turnover rate each year and uses this rate in its compensation cost calculations in 2007. Because of higher turnover, at the end of 2008 Sampress changes its estimated turnover rate to 5% per year for the entire service period. At the end of 2009, Sampress determined that the actual turnover was seven executives for the entire service period. On January 6, 2010, eight executives exercise their options.

Required

1. Prepare a schedule of the Sampress Company's compensation computations for its compensatory share option plan for 2007 through 2009 (round all computations to the nearest dollar).
2. Prepare the journal entries of Sampress Company for 2007 through 2010 in regard to this plan.

E16-9 Performance-Based Share Option Plan On January 1, 2007 Seles Company adopts a performance-based share option plan for its 80 key executives. Each executive is granted a maximum of 70 share options, but the number of options that vest depends on the percentage increase in Seles Company's sales over a three-year service period. If by December 31, 2009, sales have increased by at least 10%, 50 options will vest for each executive; if sales have increased by at least 15%, all 70 options will vest. On the grant date, Seles estimates that its sales will increase by 12% over the service period, and that its annual employee turnover rate will be 2%. It also determines that the fair value of an option expected to vest is \$13.40. At the end of 2009, actual sales had increased by 16% for the service period and the actual turnover was six key executives for the service period.

Required

1. Prepare a schedule of the Seles Company's computations for its compensatory share option plan for 2007 through 2009 (round all computations to the nearest dollar).
2. Prepare the compensation expense journal entry for 2007.

E16-10 Share Appreciation Rights On January 1, 2006, as a form of executive compensation, Wadlin Corporation grants share appreciation rights to Robert Brandt. These rights entitle Brandt to receive cash equal to the excess of the quoted market price over a \$20 option price for 4,000 shares of the company's common stock on the exercise date. The service period is three years (which Brandt is expected to complete) and the rights must be exercised within five years. Brandt exercises his rights on December 31, 2009. The fair value per SAR was as follows: 12/31/06, \$3.00; 12/31/07, \$4.20; 12/31/08, \$4.00; and 12/31/09, \$5.00. The quoted market price per share of common stock was \$25 on December 31, 2009.

Required 

1. Prepare a schedule to compute the compensation expense related to this SAR plan for 2006 through 2009.
2. Prepare the December 31, 2009 journal entry related to this SAR plan.

E16-11 Convertible Preferred Stock On January 2, 2007 the Bray Corporation issues 900 shares of \$100 par convertible preferred stock for \$117 per share. On January 7, 2008, all the preferred stockholders convert their shares to common stock.

Required 

1. Prepare the January 2, 2007 journal entry to record the issuance of the preferred stock.
2. Prepare the January 7, 2008 journal entry to record the conversion, assuming the preferred stock contract states that
 - a. Each share of preferred stock is convertible into seven shares of \$10 par common stock.
 - b. Each share of preferred stock is convertible into twelve shares of \$10 par common stock.

E16-12 Callable Preferred Stock On March 4, 2007 the Hein Corporation issues 1,000 shares of \$100 par preferred stock for \$125 per share. The stock is not callable by the corporation until three years have expired. On April 7, 2010, all the stock is called by the corporation.

Required

1. Prepare the journal entry to record the issuance of the stock.
2. Prepare the journal entry to record the recall
 - a. At a price of \$130 per share.
 - b. At a price of \$114 per share.

E16-13 Stock Rights with Preferred Stock The Nelson Corporation issues 6,000 shares of \$100 par preferred stock at a price of \$112 per share. A stock warrant is attached to each share of preferred stock that enables the holder to purchase one share of \$10 par common stock for \$25. Immediately after issuance, the preferred stock begins selling ex rights for \$110 per share. The warrants (which expire in 30 days) also begin trading for \$4 per warrant.

Required

1. Prepare the journal entry to record the sale of the preferred stock.
2. Prepare the journal entry to record the issuance of 5,000 shares of common stock in exchange for 5,000 warrants and \$25 per share.
3. Prepare the journal entry to record the expiration of 1,000 warrants.

E16-14 Various Journal Entries Sapp Company is authorized to issue 20,000 shares of no-par, \$5 stated-value common stock and 5,000 shares of 9%, \$100 par preferred stock. It enters into the following transactions:

1. Accepts a subscription contract to 7,000 shares of common stock at \$42 per share and receives a 30% down payment.
2. Collects the remaining balance of the subscription contract and issues the common stock.
3. Acquires a building by paying \$23,000 cash and issuing 2,000 shares of common stock and 600 shares of preferred stock. Common stock is currently selling at \$46 per share; preferred stock has no current market value. The building is appraised at \$180,000.
4. Sells 1,000 shares of common stock at \$45 per share.
5. Sells 900 shares of preferred stock at \$112 per share.
6. Declares a two-for-one stock split on the common stock, reducing the stated value to \$2.50 per share.

Required

Prepare journal entries to record the preceding transactions.

E16-15 Contributed Capital The following is a list of selected accounts and ending account balances taken from the books of the Adams Company on December 31, 2007:

Account Title	Amount
Premium on preferred stock	\$ 17,000
Common stock	75,000
Premium on bonds payable	4,000
Preferred stock	80,000
Bonds payable	100,000
Preferred stock subscribed	20,000
Retained earnings	121,000
Premium on common stock	84,000

Additional information:

1. Common stock has a \$5 par value, 50,000 shares are authorized, 15,000 shares have been issued and are outstanding.
2. Preferred stock has a \$100 par value, 3,000 shares are authorized, 800 shares have been issued and are outstanding. Two hundred shares have been subscribed at \$120 per share. The stock pays an 8% dividend, is cumulative and callable at \$130 per share.
3. Bonds payable mature on January 1, 2011. They carry a 12% annual interest rate, payable semiannually.

Required

Prepare the contributed capital section of the December 31, 2007 balance sheet for the Adams Company. Include appropriate parenthetical notes.

E16-16 Treasury Stock, Cost Method On January 1 the Sanders Corporation had 1,000 shares of \$10 par common stock authorized and outstanding. These shares were originally issued at a price of \$26 per share. In addition, 500 shares of \$50 par preferred stock were outstanding. These were issued at a price of \$75 per share. During the year the following stock transactions occurred:

1. March 3: Sanders Corporation reacquired 100 shares of its own common stock at a cost of \$24 per share.
2. April 27: It sold 25 shares of the stock acquired on March 3 for \$30 per share.
3. July 10: It sold 25 shares of the stock acquired on March 3 for \$22 per share.
4. October 12: It retired the remaining shares acquired on March 3.

Required

Prepare journal entries to record the treasury stock transactions of Sanders Corporation assuming it uses the cost method.

E16-17 Treasury Stock, Cost Method The records of TMP Incorporated provide the following information on January 1, 2007:

Preferred stock, \$50 par (5,000 shares authorized, issued, and outstanding)	\$250,000
Common stock, \$10 par (20,000 shares authorized, 10,000 shares issued and outstanding)	100,000
Additional paid-in capital on preferred stock	50,000
Additional paid-in capital on common stock	80,000
Retained earnings	95,000

During 2007 the following transactions were recorded by TMP:

1. Reacquired 250 shares of preferred stock for \$53 per share.
2. Reacquired 500 shares of common stock for \$20 per share.
3. Sold 200 shares of the common stock acquired in (2) for \$27 per share.
4. Sold 250 shares of preferred stock acquired in (1) for \$59 per share.
5. Sold 100 shares of the common stock acquired in (2) for \$18 per share.

Required

1. Prepare journal entries to record the stock transactions of TMP Incorporated, assuming it uses the cost method of accounting for treasury stock.
2. Prepare the stockholders' equity section of the TMP balance sheet at December 31, 2007 (assume 2007 net income was \$30,000 and dividends distributed were \$10,000).

E16-18 Treasury Stock, Cost and Par Value Methods On January 1 the West Company had outstanding 10,000 shares of \$10 par common stock, which had been originally issued at an average price of \$35 per share. During the year the company engaged in the following treasury stock transactions:

1. Reacquired 1,000 shares of its common stock for \$33 per share.
2. Reissued 600 shares of the treasury stock for \$35 per share.
3. Reissued 300 shares of the treasury stock for \$32 per share.
4. Retired the remaining 100 shares of treasury stock.

Required

Prepare journal entries to record the preceding treasury stock transactions for West Company assuming it uses (1) the cost method and (2) the par value method.

E16-19 Treasury Stock, No Par The following information is taken from the accounting records of the Propst-Steele Production Corporation:

1. Issued 5,000 shares of no-par common stock at \$15 per share.
2. Issued an additional 5,000 shares of no-par common stock at \$17 per share.
3. Reacquired 500 shares of its no-par common stock at a cost of \$12.50 per share.
4. Reissued 200 of its treasury shares at \$14 per share.
5. Reissued the remaining treasury shares at \$11 per share.

Required

Prepare journal entries to account for the preceding stock transactions of the Propst-Steele Production Corporation assuming it uses the cost method for treasury stock.

PROBLEMS

P16-1 Issuances of Stock The Cada Corporation is authorized to issue 10,000 shares of \$100 par, convertible, callable preferred stock and 80,000 shares of no-par, no-stated-value common stock. There are currently 7,000 shares of preferred and 30,000 shares of common stock outstanding. The following are several *alternative* transactions:

1. Purchased land by issuing 640 shares of preferred stock and 1,000 shares of common stock. Preferred and common are currently selling at \$113 and \$36 per share, respectively. No reliable appraisal of the land is available.
2. Same as transaction 1, except that land is appraised at \$104,000 and the preferred stock has no current market value.

3. Issued, for \$99,000 cash, a combination of 400 shares of preferred stock and bonds payable with a face value of \$50,000. Currently, the preferred stock is selling for \$120 per share and the bonds at 104.
4. Same as transaction 3, except that the bonds do not have a current market value.
5. Same as transaction 3, except that the preferred stock does not have a current market value.
6. Preferred stockholders (who had originally paid the corporation \$110 per share for their stock) convert 6,500 preferred shares into 19,500 shares of common stock. The current market prices of the preferred stock and the common stock are \$120 and \$41 per share, respectively.
7. The corporation calls the 7,000 shares of preferred stock (originally issued at \$110 per share) at \$123 per share. Common stock is currently selling for \$42 per share. Stockholders elect *not* to convert into common stock.
8. Same as transaction 7, except that stockholders owning 2,000 shares of preferred stock elect to convert each share into three shares of common stock. The remaining 5,000 preferred shares are retired.

Required

Prepare the journal entry necessary to record each transaction. Below each entry, explain your reason for the values used.

P16-2 *Issuances of Stock* The Epple Corporation is authorized to issue 20,000 shares of \$100 par, convertible, callable preferred stock and 100,000 shares of \$10 stated value common stock. Currently, the company has outstanding 6,000 shares of preferred stock and 40,000 shares of common stock. The following are several *alternative* transactions:

1. Acquired a patent by issuing 2,500 shares of common stock and bonds with the face value of \$100,000. The stock is currently selling for \$27 per share and the bonds are selling at 98.
2. Sold, for \$96,000 cash, a "package" consisting of 500 shares of preferred stock and 2,000 shares of common stock. Currently, the preferred and common stock are independently selling for \$112 and \$22 per share, respectively.
3. Purchased land by issuing 300 shares of preferred stock and 1,000 shares of common stock. The common stock is selling for \$25 per share, but the preferred stock is not being actively traded. The value of the land is appraised at \$57,000.
4. The corporation calls the 6,000 shares of preferred stock (originally issued at \$108 per share) at a call price of \$112 per share. Common stock is currently selling for \$23 per share. The stockholders elect *not* to convert into common stock.
5. Same as transaction 4, except that stockholders owning 4,000 shares of preferred stock elect to convert each share into five shares of common stock. The remaining 2,000 shares of preferred stock are retired.
6. Upon approval by the state, the board of directors decides to split the common stock two for one, reducing the stated value to \$5 per share and increasing the authorization to 200,000 shares. (Remember, only 40,000 shares are issued and outstanding.)
7. Same as transaction 6, except that the stated value is reduced to \$4 per share.

Required

Prepare the journal entry necessary to record each transaction. Below each entry, explain your reason for the values used.

P16-3 *Subscriptions* On August 3, 2007, the date of incorporation, the Quinn Company accepts separate subscriptions for 1,000 shares of \$100 par preferred stock at \$104 per share and 9,000 shares of no-par, no-stated-value common stock for \$22 per share. The subscription contracts require a 10% down payment, with the balance due by November 1, 2007. Shares are issued to each subscriber upon full payment. Any defaulted shares will be sold on November 2, 2007, and the down payment returned to the defaulting subscribers.

On November 1 the company received the remaining balances for 920 shares of preferred stock and 8,900 shares of common stock. The defaulted preferred shares and common shares were sold for \$105 and \$22.50 per share, respectively, on November 2 and the down payment was returned to the defaulting subscribers.

Required

Prepare journal entries to record all the transactions related to

1. The preferred stock
2. The common stock

P16-4 *Subscriptions* On July 3 the Wallace Company enters into a subscription contract with various investors. Terms of the contract are as follows:

1. Number of shares: 10,000 shares of no-par, \$6 stated-value common stock.
2. Price and payment schedule: Subscription price is \$13 per share. A \$3 per share down payment is required, with a \$5 per share payment due on both August 3 and October 3. Shares are issued to each subscriber upon full payment.
3. Default provisions: Defaulted shares are to be sold on October 4 at the then-current market price. If the proceeds from this sale are less than the total subscription price of the defaulted shares, an amount necessary to bring the proceeds up to the total subscription price is to be withheld from defaulted subscribers. Any remaining payments received from defaulted subscribers are to be returned to them.

Required

Record the July 3, August 3, and the October 3 and 4 journal entries, assuming that a subscriber to 500 shares of stock defaulted after making the down payment. The 500 shares were sold on October 4 for \$11 per share.

P16-5 Stock Rights to Stockholders The Nichols Electronics Corporation has been experiencing a steadily growing demand for its products. In order to meet this demand, a major expansion of production facilities is necessary. The company plans to raise the money for this proposed expansion by issuing 10,000 shares of \$50 par preferred stock and 50,000 shares of \$10 par common stock. These shares were previously authorized but have not yet been issued.

There are presently 200,000 shares of \$10 par common stock issued and outstanding. In order that the preemptive right of the current stockholders be maintained, the board of directors authorizes the issuance of stock rights to the current common stockholders on March 2, 2007. The current market price of the common stock at this date is \$24 per share. Each common stockholder is to receive one stock warrant for each share of common stock owned. One additional share of common stock may be purchased at any time prior to April 7, 2007 for \$23 and four of the stock warrants.

There are presently 20,000 shares of the \$50 par preferred stock issued and outstanding. They were selling for \$78 per share on March 5, 2007. No preemptive right applies to the preferred stock. In order to assure the sale of the additional 10,000 shares of the preferred stock, the board of directors also authorizes one stock warrant to be attached to each share of preferred stock in the new issue. One of these stock warrants allows the preferred stockholder to purchase one share of \$10 par common stock for \$18 per share at any time prior to April 7, 2007. The preferred shares with warrants attached are issued on March 6, 2007 at a price of \$83 per share. The warrants begin trading in the market at \$6 each.

Required

1. Prepare the entry to record the issuance of the common stock warrants on March 2, 2007.
2. Prepare journal entries to record the following transactions:
 - a. The sale of the 10,000 shares of \$50 par preferred stock with detachable warrants on March 6, 2007.
 - b. The exercise on March 19, 2007 of 6,000 of the stock warrants that had been attached to the preferred stock (the common stock price is currently \$24 per share and the preferred stock is selling ex rights for \$79 per share).
 - c. The exercise on April 2, 2007 of 120,000 stock warrants issued in conjunction with the preemptive right (the common stock is currently selling at \$23.50 per share).
 - d. 4,000 stock warrants related to the preferred stock and 80,000 stock warrants related to the preemptive right expire on April 6, 2007.

P16-6 Fixed Compensatory Share Option Plan On January 1, 2007 Roswall Corporation's common stock is selling for \$55 per share. On this date, Roswall creates a compensatory share option plan for its 60 key employees. The plan document states that each employee may purchase 500 shares of its \$10 par common stock for \$55 per share after working for the company for three years. On this date, based on an option pricing model, Roswall estimates that each option has a value of \$18. Historically, Roswall has experienced an employee turnover rate of 5% per year and, on the grant date, it expects this rate to continue over the next three years. Because of lower turnover, at the end of 2008 Roswall changes its estimated turnover rate to 4% for the entire service period. At the end of 2009, the options vest for 54 employees. On January 13, 2010, ten executives exercise their options when the stock is selling for \$75 per share.

Required

1. Prepare a schedule of the Roswall Corporation's compensation computations for its compensatory share option plan for 2007 through 2009 (round all computations to the nearest dollar).
2. Prepare the journal entries of Roswall Corporation for 2007 through 2010 in regard to this plan.
3. Show how the account(s) related to the plan is (are) reported in the stockholders' equity section of Roswall Corporation's balance sheet on December 31, 2008.

P16-7 Performance-Based Compensatory Share Option Plan Connors Company has 70 executives to whom it grants compensatory share options on January 1, 2007. The plan grants each executive options to acquire a maximum of 100 shares of the company's \$5 par common stock at \$50 per share after completing three years of continuous service. However, the number of options that vest depends on the increase in the company's market share over the three-year period. The following schedule shows the number of options granted to each executive based on the increase in market share by the end of the service period:

Increase in Market Share	Number of Share Options Granted
0 to 4%	40
5 to 8%	60
More than 8%	100

Based on past trends, on the grant date Connors predicts that its market share will increase about 3% by the end of 2009. At the end of 2008, due to improved market position over the previous two years, Connors revises this estimate to 7%. At the end of 2009, Connors determines that its market share has increased 9% over the three-year period.

On the grant date, Connors Company estimates that (1) the fair value of each option is \$16.25, and (2) its employee turnover rate will be 3% per year over the service period. At the end of 2008; because of increased resignations, Connors changes its estimated turnover rate to 5% for each year in the service period. At the end of 2009, 59 executives vest in the plan. On January 17, 2010, 30 executives exercise their options when the stock is selling for \$68 per share.

Required

1. Prepare a schedule of the Connors Company's compensation computations for its compensatory share option plan for 2007 through 2009 (round all computations to the nearest dollar).
2. Prepare the journal entries of Connors Company for 2007 through 2010 in regard to this plan.
3. Show how the account(s) related to the plan is (are) reported in the stockholders' equity section of Connors Company's balance sheet on December 31, 2008.
4. Do you see a problem with your answer to Requirement 3 and the eventual value of the vested stock options? How might this problem be avoided?

P16-8 Performance-Based Compensatory Share Option Plan On January 1, 2007 Pierce Company establishes a performance-based share option plan for its 80 top executives. The terms of the plan are that each executive is granted a maximum of 200 options after completing a three-year service period. The exact number of options granted, however, depends on the percentage increase in sales over the three-year period. The terms are: (1) if sales increase between 0 and 3%, each executive is granted 90 options; (2) if, instead, sales increase between 4 and 6%, each executive is granted 140 options; and (3) if, instead, sales increase at least 7%, each executive is granted the maximum number of options. Each option entitles the executive to acquire one share of the company's \$10 par common stock at a price of \$45. The options expire at the end of six years.

On the grant date Pierce Company uses an option pricing model to estimate that the fair value of each share option is \$15.50. Pierce's employee turnover rate has averaged 6% per year and, on the grant date, it expects this rate to continue over the service period. At the end of 2008, because of lower turnover, Pierce revises its estimated annual turnover rate to 4% for the service period. At the end of 2009, options vest for 68 executives. On February 3, 2010, 50 executives exercise their options when the market price of the company's common stock is \$62 per share. During the remainder of the year, the market price declines so that at the end of 2010 the other 18 executives allow their options to expire.

Based on a projection of past trends, on the grant date Pierce Company estimates that its sales will increase about 5% by the end of 2009. This estimate appears accurate through 2008. However, in the last half of 2009, sales increase so much that at the end of 2009 Pierce determines that its total sales have increased by 7% over the three-year service period. All inventory is shipped by Pierce to its customers under FOB destination terms.

Required

1. Prepare a schedule of the Pierce Company's compensation computations for its compensatory share option plan for 2007 through 2009 (round all computations to the nearest dollar).
2. Prepare the journal entries of Pierce Company for 2007 through 2010 in regard to this plan.
3. Show how the account(s) related to the plan is (are) reported in the stockholders' equity section of Pierce Company's December 31, 2008 balance sheet.
4. Do you see any problems with the way the terms of Pierce Company's compensatory share option plan are structured? Explain.

P16-9 Share Appreciation Rights Smythe Company has a share appreciation rights plan for its key executives. This SAR plan gives each qualifying executive the right to receive cash, stock, or a combination of both equal to the excess of the quoted market price over the option price of the company's \$10 par common stock on the date of exercise. The key characteristics and requirements of this SAR plan are as follows:

Option price: Market price on date of grant

Service period: 4 years

Exercise limit: Within 6 years after the service period has expired

On January 1, 2006 Sarah Mendelson was granted SARs to 10,000 shares of the company's common stock under the requirements of the SAR plan. She is expected to complete the service period and receive cash on the date of exercise. On December 31, 2010 Mendelson exercised her rights to receive \$27,000 cash and the remainder in common stock. The fair value per SAR was as follows: 12/31/06, \$4.00; 12/31/07, \$4.10; 12/31/08, \$3.80; 12/31/09, \$5.50; and 12/31/10, \$6.00. The quoted market price per share of common stock was \$16 on January 1, 2006 and \$22 on December 31, 2010.

Required 

1. Prepare a schedule to compute the compensation expense related to this SAR plan for 2006 through 2010.
2. Prepare the journal entries related to the SAR plan on December 31, 2006 through December 31, 2010.

P16-10 Comprehensive The Young Corporation has been operating successfully for several years. It is authorized to issue 24,000 shares of no-par common stock and 6,000 shares of 8%, \$100 par preferred stock. The Contributed Capital section of its January 1, 2007 balance sheet is as follows:

8% preferred stock, \$100 par	\$190,000
Common stock, no par	184,000
Premium on preferred stock	<u>15,200</u>
	\$389,200

Part a. A stockholder has raised the following questions:

1. What is the legal capital of the corporation?
2. At what average price per share has the preferred stock been issued?
3. How many shares of common stock have been issued (the common stock has been issued at an average price of \$23 per share)?

Part b. The company engaged in the following transactions in 2007:

- Mar. 2 Received a subscription to 400 shares of the 8% preferred stock. The total subscription price is \$122 per share and the contract requires a \$10 per share down payment. The remaining balance must be paid within 60 days or the stock subscription is defaulted. In the case of default, 20% of the down payment on the defaulted shares is forfeited, and the remainder is returned to the defaulting subscribers.
- Apr. 5 Sold 900 shares of common stock for \$34 per share.
- Apr. 13 Issued 400 shares of common stock in exchange for land. The stock is currently selling at \$33 per share.
- Apr. 30 Received remaining subscription balance (from March 2) owed on 350 shares of preferred stock and issued the stock.
- May 4 Returned 80% of their down payment to defaulting subscribers and canceled the related account balances.
- June 1 Reacquired 500 shares of common stock at \$36 per share. The company uses the cost method to account for treasury stock.
- Oct. 19 Issued for \$27,000 a combination of 500 shares of common stock and 100 shares of preferred stock. The common and preferred stock are currently selling for \$35 and \$125 per share, respectively.
- Nov. 16 Reissued the 500 shares of treasury stock at \$38 per share.
- Dec. 31 Distributed an \$8 per share dividend on all preferred stock outstanding and a \$2 per share dividend on all common stock outstanding on this date (debit Retained Earnings and credit Cash for each dividend).

Required

1. Answer the questions in part *a*.
2. Prepare journal entries to record the transactions in part *b*.
3. Prepare the contributed capital section of Young's December 31, 2007 balance sheet.

P16-11 Comprehensive The Byrd Company's Contributed Capital section of its January 1, 2007 balance sheet is as follows:

Preferred stock (6%, \$50 par, 8,000 shares authorized, 3,400 shares issued and outstanding)	\$170,000
Common stock (\$10 stated value, 30,000 shares authorized, 12,000 shares issued and outstanding)	120,000
Preferred stock subscribed (800 shares subscribed at \$54 per share)	40,000
Additional paid-in capital on preferred stock	12,800
Additional paid-in capital on common stock	<u>72,000</u>
Total contributed capital	\$414,800

During 2007 the company entered into the following transactions:

- Jan. 3 Established a compensatory share option plan for its key executives. The options vest after a three-year service period. The estimated fair value of the options expected to be exercised is \$81,000.
- Mar. 6 Received the remaining \$40 per share on the subscribed preferred stock and issued the shares.
- Apr. 24 Sold 300 shares of preferred stock at \$55 per share.
- May 4 Received a subscription down payment of \$6 per share on 1,000 shares of common stock. The remaining \$11 per share balance is due in 60 days.
- June 7 Sold 600 shares of common stock at \$17 per share.
- July 3 Received the remaining balance on subscribed common stock and issued the shares.
- Sept. 21 Purchased building by paying \$9,000 cash and issuing 800 shares of common stock and 450 shares of preferred stock. Common and preferred stock are currently selling for \$19 and \$57 per share, respectively.
- Oct. 12 Reacquired 900 shares of common stock at \$19.50 per share. The company uses the cost method to account for treasury stock.
- Nov. 15 Issued for \$32,000 a combination of 700 shares of common stock and 12% bonds with a face value of \$20,000. The common stock is currently selling for \$18 per share. No market value exists for the bonds.
- Dec. 14 Reissued the 900 shares of treasury stock at \$20.50 per share.
- Dec. 28 Distributed a \$3.00 per share dividend to all outstanding preferred stock and a \$1.50 per share dividend to all common stock outstanding on this date (debit Retained Earnings and credit Cash for each dividend).
- Dec. 31 Declared a two-for-one stock split on the common stock, reducing the stated value to \$4 per share and increasing the authorized shares to 60,000.

Required

1. Prepare journal entries to record the preceding transactions.
2. Prepare the contributed capital section of Byrd's December 31, 2007 balance sheet.

P16-12 Contributed Capital A partial list of the accounts and ending account balances taken from the post-closing trial balance of the Jordan Corporation on December 31, 2007 is shown as follows:

Account Title	Amount
Retained earnings	\$410,000
Bonds payable	220,000
Common stock subscribed	60,000
Long-term investments in stock	210,000
Additional paid-in capital on common stock	460,000
Premium on bonds payable	30,000
Common stock	500,000
Preferred stock subscribed	35,000
Additional paid-in capital on preferred stock	112,000
Preferred stock	300,000
Additional paid-in capital from treasury stock	4,000
Unrealized increase in value of securities available for sale	3,000
Common stock option warrants	20,000

Additional information:

1. Common stock is no-par, with a stated value of \$10 per share, 90,000 shares are authorized, 50,000 shares are issued and outstanding, 6,000 shares have been subscribed at a price of \$28 per share.
2. Preferred stock has a \$50 par value, 8,000 shares are authorized, 6,000 shares are issued and outstanding, 700 shares have been subscribed at a price of \$70 per share. Each share is cumulative, convertible into five shares of common stock, and pays a 7% annual dividend. Dividends are not in arrears.
3. Bonds payable mature on July 1, 2019. They carry a 12% annual interest rate, payable semiannually. The premium is being amortized using the straight-line method.

Required

Prepare the contributed capital section of the December 31, 2007 balance sheet for the Jordan Corporation. Include appropriate parenthetical notes for the common and preferred stock.

P16-13 Contributed Capital The following is a partial list of the accounts and ending account balances taken from the post-closing trial balance of the Clett Corporation on December 31, 2007:

Common stock subscribed	\$ 10,000	Long-term investments in	
Premium on bonds payable	50,000	preferred stock	\$ 90,000
Preferred stock	400,000	Preferred stock subscribed	100,000
Temporary investments in common stock	110,000	Retained earnings	610,000
Bonds payable	500,000	Premium on common stock	542,000
Common stock	150,000	Unrealized decrease in value of	
Premium on preferred stock	76,000	securities available for sale	6,000

Additional information:

1. Bonds payable mature on December 31, 2022. They carry a 12% interest rate, payable semiannually. The premium is being amortized using the straight-line method.
2. The 7.5% preferred stock is cumulative and convertible into three shares of common stock. It has a par value of \$100 per share, 20,000 shares are authorized, 4,000 shares are issued and outstanding, 1,000 shares have been subscribed at \$125 per share.
3. Common stock has a par value of \$5 per share, 100,000 shares are authorized, 30,000 shares are issued and outstanding, 2,000 shares have been subscribed at \$41 per share.

Required 

Prepare the contributed capital section of the December 31, 2007 balance sheet for the Clett Corporation. Include appropriate parenthetical notes for the common and preferred stock.

P16-14 Reconstruct Journal Entries At the end of its first year of operations, the Leo Company lists the following accounts and ending account balances related to stock transactions and dividends:

Account	Balance	
	Debit	Credit
Cash (from stock and for dividends paid)	\$250,000	
Subscriptions receivable: common stock	14,000	
Subscriptions receivable: preferred stock	33,600	
Equipment	69,000	
Preferred stock subscribed (for 300 shares)		\$ 30,000
8% preferred stock, \$100 par (2,300 shares)		230,000
Additional paid-in capital on preferred stock		33,000
Common stock subscribed (2,000 shares)		10,000
Common stock, \$5 stated value (9,000 shares)		45,000
Additional paid-in capital on common stock		46,000
Retained earnings		2,600

During the first year the following events occurred:

1. Subscription contracts were entered into for common stock at \$9 per share and preferred stock at \$112 per share. Common stock subscriptions required a \$2 per share down payment. Preferred stock subscriptions required no down payment. Shares (either common or preferred) were issued to subscribers upon full payment.
2. One thousand shares of common stock were sold for \$11 per share, and the stock was issued to stockholders.
3. Equipment with an appraised value of \$69,000 was acquired by issuing 600 shares of preferred stock. The appraised value of the equipment was used to record the transaction.
4. Net income of \$30,000 was closed to Retained Earnings from Income Summary at the end of the year.
5. Dividends of \$8 per share on all the preferred stock outstanding and \$1 per share on all the common stock outstanding were distributed at the end of the year (the company debited Retained Earnings and credited Cash for each dividend).

Required

On the basis of the preceding information, reconstruct all the journal entries that the company made to record the stock transactions, net income, and dividends.

P16-15 Treasury Stock, Cost Method Bush-Caine Company reported the following data on its December 31, 2006 balance sheet:

Preferred stock, \$50 par	\$50,000	Common stock, \$10 par	\$100,000
Additional paid-in capital on preferred stock	4,000	Additional paid-in capital on common stock	80,000
		Retained earnings	95,000

The following transactions were reported by the company during 2007:

1. Reacquired 200 shares of its preferred stock at \$57 per share.
2. Reacquired 500 shares of its common stock at \$16 per share.
3. Sold 100 shares of preferred treasury stock at \$58 per share.
4. Sold 200 shares of common treasury stock at \$17 per share.
5. Sold 100 shares of common treasury stock at \$9 per share.
6. Retired the shares of common stock remaining in the treasury.

The company maintains separate treasury stock accounts and related additional paid-in capital accounts for each class of stock.

Required

1. Prepare the journal entries required to record the treasury stock transactions using the cost method.
2. Assuming the company earned a net income in 2007 of \$30,000 and declared and paid dividends of \$10,000, prepare the stockholders' equity section of its balance sheet at December 31, 2007.

P16-16 Treasury Stock Analysis The Ray Holt Corporation has retained you as a consultant on accounting policies and procedures. During 2007 the company engaged in a number of treasury stock transactions, having foreseen an

opportunity to report its treasury stock as an asset, and to recognize a profit in trading its own stock. The transactions were as follows:

1. Reacquired 100 shares of its \$10 par common stock at \$20 per share. The shares had originally been issued at \$23 per share.
2. Reacquired 150 shares of its \$10 par common stock at \$24 per share. The shares had originally been issued at \$23 per share.
3. Reacquired 50 shares of its \$100 par preferred stock at \$140 per share. The shares had originally been issued at \$170 per share.
4. Sold all common treasury shares held at \$25 per share.
5. Reacquired 150 shares of its \$100 par preferred stock at \$130 per share. The shares had originally been issued at \$170 per share.
6. Retired all preferred shares held in the treasury.

Required

1. Is the corporation correct in assuming that its treasury stock is an asset and that it can recognize a profit or gain from its treasury stock transactions? Explain.
2. Prepare an analysis of treasury stock accounting for Mr. Robert Richter, the controller. This analysis should contain proper journal entries for each of the treasury stock transactions occurring during 2007, prepared using the cost method discussed in the chapter.
3. Conclude the analysis by discussing how “gains” on treasury stock are reported and how treasury stock is reported on a corporation’s balance sheet.

P16-17 AICPA Adapted Comprehensive Udall Corporation’s post-closing trial balance at December 31, 2007 was as follows:

	Debit	Credit
Accounts payable		\$ 290,000
Accounts receivable	\$ 550,000	
Accumulated depreciation—building and equipment		200,000
Additional paid-in capital—common		
In excess of par value		1,560,000
From sale of treasury stock		250,000
Allowance for doubtful accounts		30,000
Bonds payable		400,000
Building and equipment	1,100,000	
Cash	220,000	
Common stock (\$1 par value)		150,000
Dividends payable on preferred stock—cash		4,000
Inventories	620,000	
Land	380,000	
Long-term equity securities (at market)	285,000	
Marketable equity securities (at market)	215,000	
Preferred stock (\$50 par value)		500,000
Prepaid expenses	40,000	
Retained earnings		231,000
Treasury stock—common (at cost)	180,000	
Unrealized decrease in value of available-for-sale securities	25,000	
Totals	<u>\$3,615,000</u>	<u>\$3,615,000</u>

At December 31, 2007 Udall had the following number of common and preferred shares:

	Common	Preferred
Authorized	500,000	50,000
Issued	150,000	10,000
Outstanding	140,000	10,000

The dividends on preferred stock are \$4 cumulative. In addition, the preferred stock has a preference in liquidation of \$50 per share.

Required

Prepare the stockholders’ equity section of Udall’s balance sheet at December 31, 2007.

CASES

COMMUNICATION

C16-1 Stockholder Rights and Preferences

A stockholder has several rights as an “owner” of a corporation. Furthermore, the rights of preferred stockholders are sometimes modified upon the issuance of preferred stock.

Required

1. List and briefly explain stockholders’ rights as they pertain to common stockholders. Indicate the relative importance of each.
2. List and briefly explain what characteristics might be attached to preferred stock. Indicate the set of characteristics that makes preferred stock more like a long-term bond than a common stock.

C16-2 Exchange of Stock for Asset

As a general rule, when a corporation issues capital stock for assets other than cash, it is said that the exchange should be valued at the fair value of the stock or the asset, whichever is more reliable.

Required

Write a short report that explains the reasoning behind this rule, including the concepts of *watered stock* and *secret reserves*. Give an example of a situation where the fair value of (1) the stock or, alternatively, (2) the asset is used to record an exchange.

C16-3 Issuance of Security Packages

Occasionally, a corporation will combine securities into a “package” (for example, common stocks, preferred stocks, bonds) and issue these securities as a single unit.

Required

Assuming that two securities (common stock and preferred stock) are issued as a unit, explain the alternative ways of valuing the separate stocks of the unit in an exchange for (1) cash, or (2) an asset(s) other than cash.

C16-4 Subscriptions

A corporation may enter into subscription contracts for the purchase of its stock.

Required

What is a subscription contract and how does it work? What provisions are usually included in the contract? What are the arguments for reporting the Subscriptions Receivable account as a contra-stockholders’ equity item and for reporting it as a current asset? Why is the Capital Stock account not credited at the time of the subscription instead of the Capital Stock Subscribed account? How is this latter account reported on the corporation’s balance sheet?

What are the alternative methods of handling subscription defaults?

C16-5 Share Options

AICPA Adapted A corporation has a noncompensatory share purchase plan for all its employees and a compensatory share option plan for some of its corporate officers.

Required

1. Compare and contrast the accounting at the date the stock is issued for the noncompensatory share purchase plan with that for the compensatory share option plan.
2. What entry should be made for the compensatory share option plan at the date of the grant?

C16-6 Capital Stock

AICPA Adapted Capital stock is an important area of a corporation’s equity section. Generally the term “capital stock” embraces common and preferred stock issued by a corporation.

Required

1. What are the basic rights inherent in ownership of common stock, and how are they exercised?
2. What is preferred stock? Discuss the various preferences afforded preferred stock.

C16-7 Treasury Stock

A corporation sometimes engages in treasury stock transactions.

Required

1. Define *treasury stock*.
2. Why would a corporation acquire treasury stock?
3. Briefly explain the cost method of accounting for the reacquisition and reissuance of treasury stock. Assume the treasury stock is common stock and has a par value.
4. Briefly explain the balance sheet presentation of treasury stock under this method.

C16-8 Definitions

AICPA Adapted In dealing with the various equity securities of a corporate entity, it is important to understand certain related terminology.

Required

Define the following terms: (1) treasury stock, (2) legal capital, (3) stock right, and (4) stock warrant.

CREATIVE AND CRITICAL THINKING

C16-9 Compensatory Share Options

AICPA Adapted On November 6, 2006, Gunpowder Corp.'s board of directors approved a share option plan for key executives. On January 2, 2007, a specific number of share options were granted. These options were exercisable between January 2, 2009 and December 31, 2011 at 90% of the quoted market price on January 2, 2007. The service period is for 2007 and 2008. Some options were forfeited when an executive resigned in 2008. All other options were exercised during 2009.

Required

1. How should Gunpowder determine the compensation expense, if any, for the share option plan in 2007?
2. What is the effect of forfeiture of the share options on Gunpowder's financial statements for 2008?
3. What is the effect of the share option plan on the balance sheet at December 31, 2009? Be specific as to the changes in balance sheet accounts between November 6, 2006 and December 31, 2009.

C16-10 Share Appreciation Rights

Instead of a fixed compensatory share option plan, Wright Company is considering providing its key executives with a plan that involves share appreciation rights (SAR).

Required

1. Explain what is meant by an SAR plan.
2. Identify the key differences between accounting for an SAR plan and a fixed compensatory share option plan.
3. Briefly summarize the steps in accounting for an SAR plan (assume that the executive is expected to receive cash on the date of exercise).

C16-11 Compensatory Share Option Plan

Tom Twitlet, president of Twitlet Corporation, is considering establishing a compensatory share option plan for the company's 20 top executives. Tom desires to set the terms of the plan so that the number of options the executives can exercise increases based on a specified increase in the company's future earnings. Tom is concerned about how to specify and account for the terms of the plan, and has asked for your advice.

Required

Prepare a memo to Tom that briefly explains the issues involved in specifying and accounting for the terms of this type of compensatory share option plan.

C16-12 Convertible Preferred Stock and Warrants

The stockholders' equity of a corporation may include both preferred stock and common stock. Preferred stock may (1) be convertible into common stock, or (2) be issued with warrants attached enabling the acquisition of common stock.

Required

Discuss the following three items:

1. The similarities and differences between these types of preferred stock.
2. Theoretically, the appropriate accounting treatment for the proceeds from the issuance of both types of preferred stock.
3. Which accounting treatment is generally acceptable for each type and why?

C16-13 Treasury Stock

AICPA Adapted For numerous reasons a corporation may reacquire shares of its own capital stock. When a corporation purchases treasury stock, it has two options as to how to account for the shares: (1) cost method, and (2) par value method.

Required

Write a short report that compares and contrasts the cost method with the par value method for each of the following:

1. Purchase of shares at a price less than par value.
2. Purchase of shares at a price greater than par value.
3. Subsequent resale of treasury shares at a price less than purchase price, but more than par value.
4. Subsequent resale of treasury shares at a price greater than both purchase price and par value.
5. Effect on net income.

C16-14 Changes in Equity

FASB Statement of Concepts No. 6 defines a company's equity and discusses the various changes in equity.

Required

Define and discuss the term equity. Identify the various changes in a company's equity in regard to their impact on assets and liabilities.

C16-15 Analyzing Coca-Cola's Contributed Capital

Refer to the financial statements and related notes of The Coca-Cola Company in Appendix A of this book.

Required

1. How many shares of preferred stock were authorized and issued at the end of 2004?
2. How many shares of common stock were authorized and issued at the end of 2004? What is the par value per share?
3. What does the company call its additional paid-in capital? What was the amount at the end of 2004?
4. How many shares of treasury stock did the company hold at the end of 2004? What was the average cost per share?
5. How many shares of treasury stock did the company reacquire during 2004? What was the average cost per share?
6. Briefly describe the company's 2002 Stock Option Plan. What was the weighted-average fair value of the stock options the company granted in 2004? How much was

the company's total stock-based compensation expense for 2004 and where was it reported? How many stock options were granted and exercised during 2004, and how many were outstanding at the end of 2004? At what weighted-average price per share were the options exercised in 2004? Assuming the stock options were exercised in 2004 at the weighted-average price per share and that the average market price per share was \$46, by how much did the officers "gain" from exercising the options?



C16-16 Ethics and Share Options

Smaller Corporation has been in operation for several years. Each year, at Christmas time, the company has given a cash bonus to each of its employees, and properly recorded the bonuses as compensation expense. Smaller has reached the point at which it is now making a reasonable return on its stockholders' equity. At the end of the current year, the president of the company is considering establishing a compensatory share option plan for Smaller's key executives, instead of paying cash bonuses to any of its employees. At this time the market price and the planned option (exercise) price of the company's common stock are the same. The plan would allocate a specified number of options to each executive based on the executive's level within the company and meeting the company's targeted income goals. The

service period would be three years and the options would have to be exercised within 10 years.

You are the controller for Smaller and one of the key executives who would participate in the plan. You also already own a substantial number of shares of Smaller common stock. The company president comes to you for advice about this plan and says, "If Smaller Corporation establishes this plan, it will work out for all of us. It looks like the plan is pretty valuable, since an option pricing model shows a high fair value for each option. The corporation will be saving cash because it won't have to pay bonuses to either the executives or the other employees. But executives will manage better because their share options will depend on meeting the company's targeted income. Since the market price and the option price are the same, there won't be any compensation cost or expense related to this plan. Furthermore, since no bonuses would be paid to any employees, the corporation will decrease its compensation expense. This will increase its net income and earnings per share compared to last year, as well as its return on stockholders' equity. So the stock value will go up. This seems like a win-win situation for everyone. Am I right on this? Do you think the company should adopt this compensatory share option plan?"

Required

From financial reporting and ethical perspectives, how would you reply to the president?

RESEARCH SIMULATIONS

R16-1 Researching GAAP

Situation

Russell International, a publicly traded company, reacquired 500,000 shares of its common stock during July 2008 at a cost of \$25 per share. The current market price of the stock was \$20 per share when the 500,000 shares were reacquired.

The shares that were reacquired had been owned by a group of minority shareholders who had been dissatisfied with Russell International's earnings trend, stock price, and dividends paid. In fact, these minority shareholders had been so disgruntled that they had filed a suit against Russell's directors during 2007. The minority shareholders' suit claimed damages of \$3 million because of the board's failure to fulfill its fiduciary responsibility to maximize shareholders' value.

In August 2008 the minority shareholders' suit was dropped, with neither Russell International nor its directors having to offer or pay a settlement. Russell International accounts for its treasury stock transactions using the cost method.

Directions

Research the related generally accepted accounting principles and explain how Russell International should account for the treasury stock transaction. Cite your reference and applicable paragraph numbers. (Contributed by Daryl G. Krause)

R16-2 Researching GAAP

Situation

Bowsher Company had 10% bonds payable outstanding with a total face value of \$185,000. Each bond had an individual face value of \$1,000 and paid interest semiannually on June 30 and December 31. On July 1 of the current year the 10% bonds had a total book value of \$210,000. At that time, because of a financial restructuring, the company executed an "exchange agreement" in which all of these 10% bonds were extinguished. In exchange for their 10% bonds, the bondholders were given cash of \$125 per 10% bond, six shares of 7%, \$100 preferred stock per 10% bond, and 50 warrants per 10% bond allowing the holder to acquire 50 shares of \$5 par common stock for \$25 per share. On July 1 the 7% preferred stock was selling at \$106 per share and the warrants were selling at \$5 each on the open market. You are the assistant accountant for Bowsher Company and have been asked by the head accountant to recommend how to record this transaction.

Directions

Research the related generally accepted accounting principles and prepare a short memo that explains and justifies your recommended journal entry to record the transaction. Cite your reference and applicable paragraph numbers.