

## 17

## OBJECTIVES

After reading this chapter you will be able to:

- 1 Compute basic earnings per share (EPS).
- 2 Understand how to compute the weighted average common shares for EPS.
- 3 Identify the potential common shares included in diluted EPS.
- 4 Apply the treasury stock method for including share options and warrants in diluted EPS.
- 5 Calculate the impact of a convertible security on diluted EPS.
- 6 Compute diluted EPS.
- 7 Record the declaration and payment of cash dividends.
- 8 Account for a property dividend.
- 9 Explain the difference in accounting for small and large stock dividends.
- 10 Understand how to report accumulated other comprehensive income.
- 11 Prepare a statement of changes in stockholders' equity.

## Earnings Per Share and Retained Earnings

### Are Dividends Making a Comeback?

While earnings per share (EPS) is one of the most-watched numbers in corporate America, the ability of a company to earn a profit does not always translate to the ability to pay a large dividend. For example, **Microsoft** chose not to pay a dividend from its inception. Instead it reinvested its earnings to fuel future growth. Eventually, Microsoft grew to a point where it could no longer grow at the rate it had maintained for so long. With analysts estimating that Microsoft was generating roughly \$1 billion in extra cash each month, management was forced to act. In early 2003, Microsoft declared its first dividend ever on common stock. This was followed in mid-2004 with a special one-time dividend of \$3 per share, a payout worth approximately \$32 billion. And Microsoft is not alone. According to a *New York Times* article, the number of companies that decided to increase dividends in 2004 increased for the third consecutive year.

Why the sudden popularity of dividends?<sup>1</sup> While investors seemed to avoid dividend-paying stocks in the 1990s as companies focused on growth, U.S. companies paid a record \$213.6 billion in dividends in 2004. Two reasons have been cited for this increase. First, faced with lackluster stock performance and burned by accounting scandals that made profits disappear, shareholders have increasingly put pressure on companies to pay

1. Adapted from "Tax Cut, Shareholder Pressure Stoke Surge in Stock Dividends," *Wall Street Journal*, Jan. 18, 2005.



dividends. Second, in 2003, new tax legislation was enacted that slashed the tax rate on dividends to 15%, a move viewed by many as effectively ending the practice of double taxation of dividends. With S&P 500 companies only distributing 34% of their earnings as dividends (the historical average is 56%), many analysts believe that this comeback for dividends is likely to continue.

### FOR FURTHER INVESTIGATION

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

- The Market's Differential Reactions to Forward-Looking and Backward-Looking Dividend Changes. Bong-Soo Lee, Nairong Allen Yan, *Journal of Financial Research*, 0270-2592, Winter 2003, v26, i4, p449-468.
- Get Thy Yield: President Bush Wants to Hand Down a Repeal of the Stock-Dividend Tax. (Panel Discussion) Daniel Kadlec, *Time*, 0040-781X, Feb 10, 2003, v161, i6, pA11+.

In the previous chapter we introduced the topic of stockholders' equity by discussing the contributed capital that arises when a corporation issues capital stock. We also discussed the impact of the reacquisition of a corporation's capital stock (treasury stock) on its stockholders' equity. In this chapter we continue discussing stockholders' equity by focusing primarily on retained earnings. The chapter begins with a discussion of earnings per share (EPS) because its computation involves items of contributed capital (common stock) and retained earnings (net income). The chapter then moves to a discussion of items affecting retained earnings, such as dividends, prior period and retrospective adjustments, and restrictions (appropriations). We conclude the chapter by discussing the statement of retained earnings, other changes in stockholders' equity, and the statement of changes in stockholders' equity.

## EARNINGS AND EARNINGS PER SHARE

Net income (loss) is the amount of earnings from a corporation's income-producing activities during its accounting period. A corporation summarizes the components of its net income on its income statement. As we discussed in Chapter 5, the primary components are: (1) **income (loss) from continuing operations**, which includes operating revenues and operating expenses; (2) **results from discontinued operations**, which includes the income (loss) from the operations of a discontinued component as well as the gain (loss) from the disposal of the discontinued component; and (3) **extraordinary gains or losses**, the results of unusual *and* infrequent events. A corporation also reports its earnings per share on its income statement.

Corporations are required to disclose earnings per share information. **FASB Statement No. 128** contains the generally accepted accounting principles for earnings per share. We discuss the major issues involved in computing and reporting earnings per share in the following sections.

## OVERVIEW AND USES OF EARNINGS PER SHARE INFORMATION



Earnings per share often is considered to be the best measure summarizing the performance of a corporation, particularly for common shareholders. Earnings per share information is *relevant* to these users in evaluating the *return on investment* and *risk* of a corporation.

The amount of earnings per share, the change in earnings per share from the previous period, and the trend in earnings per share are all important indicators of a corporation's success. Many investors also are interested in the corporation's cash flow per share. Although corporations are prohibited from reporting cash flow per share, earnings per share may be a long-run indicator of cash flow per share.

One ratio used to evaluate return and risk is the price/earnings ratio, which investors often use in intercompany comparisons. To compute the price/earnings ratio, earnings per share is divided into the market price per share (of the common stock). For example, at the time of writing this book, two department stores, **Kohl's Corporation** and **J.C. Penney Company**, had price/earnings ratios of 21 and 17, respectively. Kohl's price/earnings ratio indicates that the stock is selling for a price of 21 times the most recent year's earnings per share. The difference in the ratios indicates that compared to Penney's price/earnings ratio, investors are more optimistic about the future of Kohl's and expect that it will have a higher growth in earnings per share.

Investors often are interested in predicting earnings per share for future periods. One required earnings per share computation is intended to indicate the effects of possible future events. When a corporation has issued common share options (discussed in Chapter 16), convertible debt (discussed in Chapter 14), or convertible preferred stock

(discussed in Chapter 14), it will issue additional common shares if the options are exercised or the securities converted, thereby affecting earnings per share. Diluted earnings per share (which we define and discuss later) includes the potential effects of such conversions. Also, earnings per share may be computed on past reported earnings, or on future earnings as estimated by financial analysts. When using earnings per share information (e.g., price/earnings ratios) for intercompany comparisons, a user must be sure that the calculations are *comparable*.

## BASIC EARNINGS PER SHARE

For computing earnings per share, there are two types of corporate capital structures—simple and complex. We begin by discussing earnings per share for a corporation with a simple capital structure. A **simple capital structure is one that consists only of common stock outstanding**. A corporation with a simple capital structure is required to report basic earnings per share (sometimes called earnings per common share).<sup>2</sup> **Basic earnings per share** is computed as follows:

$$\text{Basic Earnings Per Share} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Weighted Average Number of Common Shares Outstanding}}$$

### Example: Basic Earnings per Share

Assume that during 2007, Lapan Corporation reports net income of \$48,000, and declares and pays dividends of \$8,000 on its preferred stock. It also declares and pays dividends of \$12,000 on its 16,000 shares of common stock that have been outstanding for the entire year. Lapan Corporation computes its \$2.50 basic earnings per share for 2007 as follows:

$$\underline{\$2.50} = \frac{\$48,000 - \$8,000}{16,000}$$

Note that Lapan Corporation deducts the dividends on its preferred dividends but not the dividends on its common stock in computing its basic earnings per share. This is because the numerator of the basic earnings per share calculation is the earnings available to common stockholders, and preferred dividends must be paid before common dividends may be distributed.

Lapan Corporation reports its \$2.50 basic earnings per share on its 2007 income statement, directly below net income. If it had a net loss, it would have reported the basic loss per share. It also reports basic earnings per share (or basic loss per share) for each comparative income statement presented. ♦

There are several complexities that affect the numerator and denominator of the earnings per share equation. Although we discuss these issues for basic earnings per share, they also apply to corporations that report diluted earnings per share (which we discuss in a later section).

## Numerator Calculations

Only the amount of *earnings available to common stockholders* is used in the numerator of the earnings per share computation. If a corporation has outstanding *noncumulative* preferred stock, it deducts the dividends declared during the current period from the net income to determine the earnings available to common stockholders (as we did in the

1 Compute basic earnings per share (EPS).

2. "Earnings per Share," *FASB Statement of Financial Accounting Standards No. 128* (Norwalk, Conn.: FASB, 1997), par 36. A corporation also has a simple capital structure if it has nonconvertible preferred stock outstanding, in addition to its common stock.

previous example). If the corporation has *cumulative* preferred stock outstanding, it deducts the dividends for the *current* period, *whether declared or not*. It discloses the amount of the dividends deduction in the notes to its financial statements, as we show in Example 17-3.

## Denominator Calculations

There are two types of denominator calculations: weighted average shares and stock dividends and splits.

### Weighted Average Shares

Since a corporation earns its net income over the entire year, the earnings relate to the common shares outstanding during the year. If a corporation has not issued or reacquired any shares during the year, it uses the number of common shares outstanding at the end of the accounting period as the denominator. If a corporation has issued or reacquired common shares during the period, the denominator is the weighted average number of common shares outstanding during the period.

A corporation calculates the weighted average by starting with the actual number of common shares outstanding at the beginning of the period. It then multiplies this “layer” of shares by the fraction of the year it is outstanding until more common stock is issued (or shares are reacquired). These new shares are added to (or subtracted from) the actual beginning number of outstanding shares, and the new layer is multiplied by the fraction of the year it is outstanding. This process is continued for all the issuances of common stock during the year. The resulting “equivalent whole units” of stock for all the layers are added to determine the weighted average number of common shares.

#### Example: Weighted Average Shares

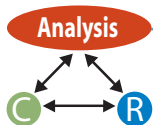
Assume McTeal Corporation had 12,000 shares of common stock outstanding at the beginning of the year. On March 2, it issued 2,700 shares; on July 3, it issued another 3,300 shares; and on December 1, it reacquired 480 shares as treasury stock. The weighted average number of common shares the corporation uses in computing its earnings per share is 15,860 shares, as we show in Example 17-1. McTeal Corporation discloses this number in the notes to its financial statements. Note that for simplicity, the nearest whole month is used to determine the fraction of the year each layer of shares was outstanding. ♦

#### EXAMPLE 17-1 Weighted Average Shares

Months Shares Are Outstanding	Shares Outstanding	×	Fraction of Year Outstanding	=	Equivalent Whole Units
January–February	12,000	×	2/12	=	2,000
March–June	14,700	×	4/12	=	4,900
July–November	18,000	×	5/12	=	7,500
December	17,520	×	1/12	=	1,460
Total weighted average common shares					<u>15,860</u>

### Stock Dividends or Splits

A corporation’s common shares outstanding may increase because of a stock dividend or stock split. In these cases, it must give *retroactive* recognition to these events for all comparative income statements that it presents.<sup>3</sup> This retroactive adjustment results in comparable earnings per share amounts for all periods, based on the most recent capital structure. The



3. A corporation must also give retroactive recognition if the stock dividend or split occurs after the end of the accounting period but before it issues its financial statements.

2 Understand how to compute the weighted average common shares for EPS.

simplest way of giving retroactive recognition is to first assume (for earnings per share computations) that the stock dividend or split occurred at the *beginning* of the earliest comparative period. Then assume that all stock transactions between this beginning date and the *actual* date of the stock dividend or split included the additional shares resulting from the assumed dividend or split.

### Example: Stock Dividend and Split

Assume that Wallers Corporation begins operations in January 2007, and issues 5,000 shares of common stock that are outstanding during all of 2007. On December 31, 2007, it issues a two-for-one stock split. At the end of 2007, the weighted average number of shares that it uses in the earnings per share computation for 2007 is 10,000 ( $5,000 \times 200\% \times 12/12$ ) because the two-for-one stock split is *assumed* to have occurred on January 1, 2007.

On May 28, 2008, the corporation issues 5,000 shares of common stock; on August 3, 2008, it issues a 20% stock dividend; and on October 5, 2008, it issues 2,000 shares of stock. At the end of 2008, when it reports comparative earnings per share for 2007 and 2008, the weighted average numbers of shares it uses in the computation are 12,000 shares for 2007 and 16,000 shares for 2008, as we show in Example 17-2.

#### EXAMPLE 17-2 Comparative Weighted Average Shares

##### Retroactive Recognition of Stock Split and Stock Dividend: At end of 2008, for 2007 and 2008

Months Shares Are Outstanding	Actual Shares Outstanding	Assumed Shares Outstanding	×	Fraction of Year Outstanding	=	Equivalent Whole Units
<b>2007</b>						
January–December	5,000	$5,000 \times 200\% \times 120\% = 12,000$	×	12/12	=	<u>12,000</u>
<b>2008</b>						
January–May	10,000	$10,000 \times 120\% = 12,000$	×	5/12	=	5,000
June–July	15,000	$15,000 \times 120\% = 18,000$	×	2/12	=	3,000
August–September	18,000	$15,000 \times 120\% = 18,000$	×	2/12	=	3,000
October–December	20,000	$15,000 \times 120\% + 2,000 = 20,000$	×	3/12	=	<u>5,000</u>
						<u>16,000</u>

In Example 17-2, for comparative purposes at the end of 2008, the two-for-one stock split actually issued on December 31 *and* the 20% stock dividend actually issued on August 3, 2008 are both *assumed* to have been issued on January 1, 2007. Under this assumption, 12,000 shares of stock would have been outstanding during all of 2007. Similarly, during 2008, 12,000 shares initially would have been outstanding. The 5,000 shares issued on May 29 would have increased by 20% to 6,000 shares, resulting in 18,000 shares outstanding until October 5, 2008. The 2,000 shares issued on October 5, 2008 would not have increased because this issuance occurred *after* the actual stock dividend. The resulting weighted average number of shares is 16,000 at the end of 2008. Although these assumptions do not reflect the actual timing of the transactions, they are necessary to compute comparable earnings per share amounts for each year. ♦

### Components of Earnings Per Share

Net income is the final earnings amount on a corporation's income statement. If the net income includes any results from discontinued operations or extraordinary items, the corporation must report separate earnings per share amounts for *both* income from continuing operations and net income on its income statement. It is also required to disclose the earnings per share related to the results from discontinued operations and extraordinary items. The corporation may report these component amounts on its income statement or





in the notes to its financial statements.<sup>4</sup> Each of these earnings per share component amounts is based on the same weighted average number of shares. When reported on the income statement, the components are summed to report the total earnings per share. The intent is to show the contribution of each income statement component to the total earnings per share. When a corporation has deducted preferred dividends in the computation of total earnings per share, it also deducts these dividends from the income related to continuing operations to reconcile the earnings per share amounts.

### Example of Basic Earnings Per Share

Example 17-3 shows the computation of basic earnings per share for Stanton Corporation.

#### EXAMPLE 17-3 Computation and Reporting of Basic Earnings Per Share

1. Income statement information for Stanton Corporation:
  - a. Net income for 2007 is \$14,000.
  - b. An extraordinary gain (net of income taxes) of \$3,600 is included in net income.
2. Stockholders' equity information (end of 2007):
  - a. 8% Preferred stock, \$100 par      \$30,000
  - b. Common stock, \$10 par              \$60,000
3. Additional information:
  - a. No preferred stock was issued or reacquired during 2007.
  - b. Preferred dividends were declared during 2007 at the stated rate.
  - c. A review of the common stock account shows that on January 1, 2007, 2,000 shares of common stock were outstanding. On April 2, 500 shares of common stock were issued for cash. On June 1, a two-for-one stock split occurred, resulting in 5,000 total common shares. On November 2, 1,000 shares of common stock were issued for cash.
4. Basic earnings per share computations for 2007:

Explanation	Earnings (Adjustments)	÷	Shares (Adjustments)	=	Earnings Per Share
Net income	\$14,000				
Preferred dividends <sup>a</sup>	(2,400)				
Common shares <sup>b</sup>			4,917		
Earnings and shares	\$11,600	÷	4,917	=	<u>\$2.36</u>

a. Preferred dividends:  $\$30,000 \times 0.08 = \$2,400$

b. Weighted average shares:

4,000 (2,000 × 200% stock split) × 3/12 = 1,000

5,000 (2,500 × 200%) × 7/12 = 2,917

6,000 (2,500 × 200% + 1,000) × 2/12 = 1,000

Weighted average common shares      4,917

5. Condensed income statement presentation of Stanton Corporation for 2007:

Income before extraordinary items	\$10,400
Extraordinary gain (net of income taxes)	<u>3,600</u>
Net income	<u>\$14,000</u>
Basic earnings per share (see Note A):	
Income before extraordinary items	\$1.63
Extraordinary gain	<u>0.73</u>
Net income	<u>\$2.36</u>

6. Note A to financial statements: Preferred dividends of \$2,400 are deducted from income before extraordinary items and net income to determine earnings available to common stock. The resulting amounts of \$8,000 and \$11,600 divided by the 4,917 weighted average number of common shares yield \$1.63 and \$2.36 basic earnings per share, respectively. A total of 6,000 common shares were outstanding at the end of 2007.

4. FASB *Statement of Financial Accounting Standards No. 128, op. cit.*, par. 37. These disclosures are also required for diluted earnings per share, as we discuss later.

## DILUTED EARNINGS PER SHARE

Many corporations have a more complex capital structure. Their capital structure includes securities such as share options and warrants, convertible preferred stock and convertible bonds, participating securities and two-class stocks, and contingent shares. These securities are referred to as **potential common shares** because they can be used by the holder to acquire common stock. Since conversion of these securities into common stock would affect the earnings available to each common stockholder, they are considered in computing a corporation's earnings per share.

Instead of a single earnings per share disclosure, a **corporation with a complex capital structure is required to report two earnings per share amounts on the face of its income statement.** The two amounts are basic earnings per share and diluted earnings per share. Basic earnings per share is computed, as we discussed earlier, for corporations with a simple capital structure. **Diluted earnings per share shows the earnings per share after including all potential common shares that would reduce earnings per share.** If a corporation has a *loss* from continuing operations, then it does **not** include potential common shares in diluted earnings per share (even if it reports a positive net income). In this case, the corporation's basic and diluted earnings per share are the same.<sup>5</sup>

**When a corporation with a complex capital structure computes diluted earnings per share, it must consider the impact of potential common shares.** It considers these in addition to the weighted average common shares calculation, stock dividends and stock split assumptions, and earnings presentations we discussed earlier. We discuss only the more common types of potential common shares—share options (sometimes called stock options) and warrants, and convertible preferred stock and bonds—in this section.

**To be included in the diluted earnings per share calculation, any potential common share must have a dilutive effect on (that is, decrease) earnings per share.** Thus, a corporation may include a potential common share in the diluted earnings per share computation in one accounting period and not in another. Consequently, you must be familiar with the types of potential common shares, the tests to determine the dilution of each security, and the diluted earnings per share computations.

To evaluate the dilutive effect of each security, a corporation must include potential common shares in the diluted earnings per share (DEPS) calculations in a certain order. Therefore, **the steps for computing DEPS are as follows:**

- Step 1.** Compute the basic earnings per share.
- Step 2.** Include dilutive share options and warrants and compute a tentative DEPS.
- Step 3.** Develop a ranking of the impact of each convertible preferred stock and convertible bond on DEPS.
- Step 4.** Include each dilutive convertible security in DEPS in a sequential order based on the ranking and compute a new tentative DEPS.
- Step 5.** Select as the diluted earnings per share the lowest computed tentative DEPS.

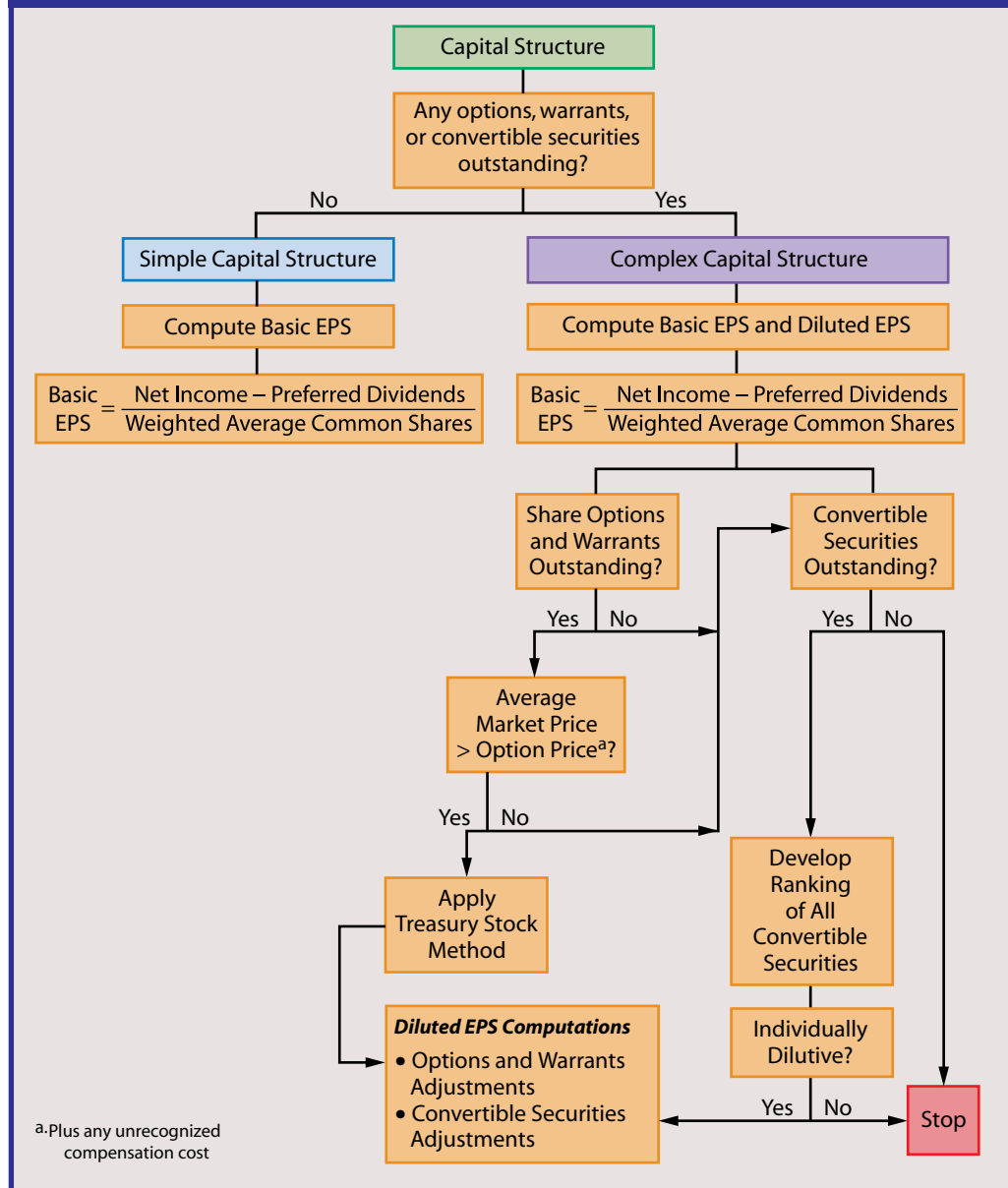
Since we already have discussed how to compute basic earnings per share, the following discussion explains steps 2 through 5 for computing diluted earnings per share. Exhibit 17-1 shows a flowchart summarizing these steps.

**3** Identify the potential common shares included in diluted EPS.

5. *Ibid.*, par. 11 and 16.



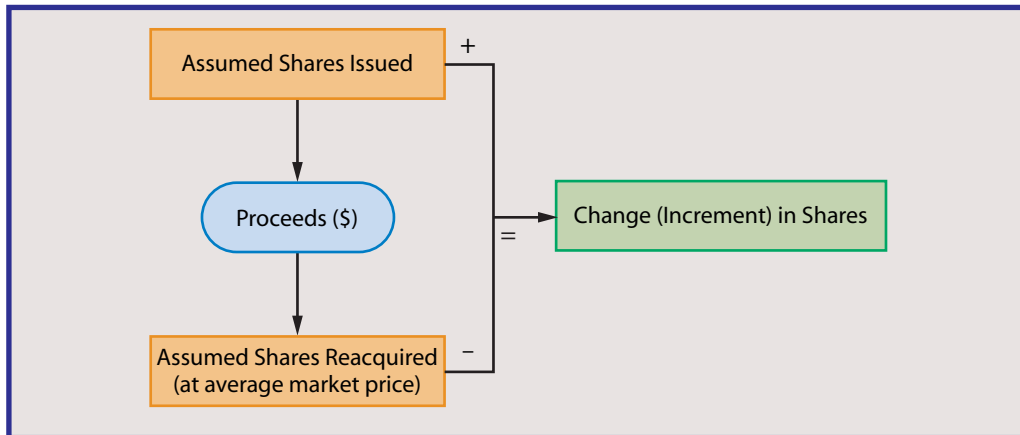
EXHIBIT 17-1 Flowchart of EPS Computations



### Share Options and Warrants

A corporation always first considers share options, warrants, and similar arrangements in its diluted earnings per share calculations. However, they are included in diluted earnings per share only if they are *dilutive*. Since the exercise of share options or warrants does not affect the corporation's net income, the focus is on the earnings per share denominator. **The treasury stock method is used to determine the change in the number of shares.** In this method, the impact on common shares is computed under the assumption (for earnings per share computations) that the options were exercised at the beginning of the period (or at the time the options were issued, if later). Then, it is assumed that the proceeds obtained from the exercise were used by the corporation to reacquire common stock at the *average* market price during the period.

Under the treasury stock method, the number of shares added to the earnings per share denominator is the difference between the assumed shares issued and the assumed shares reacquired. We show this relationship in the following diagram (we will discuss how to compute the proceeds shortly):



Whenever the shares issued exceed the shares reacquired, the effect is a dilution of earnings per share. **Dilution occurs whenever the average market price is greater than the option (exercise) price.**<sup>6</sup> In this case, it is assumed that fewer shares are reacquired than are issued. If the average market price is less than the option price, the assumed exercise would be antidilutive (i.e., would *increase* earnings per share). Therefore, the options are *excluded* from the diluted earnings per share computation (and the employees would not exercise their options under these circumstances). **The steps for the treasury stock method are as follows:**

**4** Apply the treasury stock method for including share options and warrants in diluted EPS.

- Step 1. Determine the average market price of common shares during the period (if less than the option price, stop; the assumed exercise of the options and warrants would be antidilutive).<sup>7</sup>
- Step 2. Compute the shares issued from the assumed exercise of all options and warrants.
- Step 3. Compute the proceeds received from the assumed exercise by multiplying the shares issued by the option price [plus any unrecognized compensation cost (net of tax) per share].
- Step 4. Compute the assumed shares reacquired by dividing the proceeds (step 3) by the average market price (step 1).
- Step 5. Compute the incremental common shares (the results of step 2 minus step 4).

Step 3 needs further explanation. Recall from Chapter 16 that a corporation uses the fair value method to account for its compensatory share option plan. It determines its total compensation cost on the grant date (based on the estimated fair value of the stock) and recognizes a portion of this cost as an expense over the service period. For its earnings per share, the portion of the compensation cost (net of tax) that the corporation has *not* yet recognized as compensation expense is included in the proceeds received from the assumed exercise of compensatory share options.<sup>8</sup> This approach is used to estimate the fair value per share that the corporation would receive from the share options for the common stock assumed issued before the service period has expired. That is, if an

6. The option price is adjusted for any unrecognized compensation cost, as we discuss below.

7. The FASB has issued a *Proposed Statement of Financial Accounting Standards* that explains how to compute the average market price of common shares for computing quarterly and year-to-date periods. These can be complex calculations. For simplicity, we always provide the average market price.

8. *FASB Statement of Financial Accounting Standards No. 128, op. cit.*, par. 21.

employee exercised a share option before the service period had expired, the corporation would require the employee to pay both the option price and a “premium” for the early exercise. The unrecognized compensation cost per share is an estimate of this premium. By adding this amount to the exercise price, the computation includes an estimate of the fair value per share of common stock that the corporation would receive at the point of early exercise. The computation of the unrecognized compensation cost is complex; for simplicity, in the text and homework we always state the amount per share of any unrecognized compensation cost (net of tax) that should be included in the computation of the proceeds.

### Example: Share Options

Assume Plummer Corporation has compensatory share options for employees to purchase 1,000 common shares at \$18 per share outstanding the entire year, and that the average market price for the common stock during the year was \$25 per share. The unrecognized compensation cost (net of tax) related to the share options is \$2 per share. The net increase in the denominator is 200 shares, which has a dilutive effect on earnings per share. The share calculation is as follows:

$$\begin{array}{r} \text{Shares issued from assumed exercise:} \\ \text{Shares assumed reacquired:} \end{array} \qquad \qquad \qquad \begin{array}{r} 1,000 \\ \\ \end{array}$$

$$\frac{\text{Proceeds}}{\text{Average Market Price Per Share}} = \frac{1,000 \times (\$18 + \$2)}{\$25} = \frac{\$20,000}{\$25} = \underline{(800)}$$

$$\begin{array}{r} \text{Assumed increment in common shares for} \\ \text{computing diluted earnings per share} \end{array} \qquad \qquad \qquad \begin{array}{r} \\ \\ \underline{\underline{200}} \end{array}$$

After Plummer Corporation has computed the number of incremental shares resulting from the assumed exercise of the options or warrants, it adds the increase to the denominator of the basic earnings per share. Then it divides the original numerator by the new denominator to determine the tentative diluted earnings per share. If no convertible securities are outstanding, this tentative figure is the final diluted earnings per share. We show this procedure later in part 4 of Example 17-5. ♦

### Convertible Securities

Convertible bonds and convertible preferred stock are considered for inclusion in diluted earnings per share after stock options and warrants. A corporation includes convertible securities in its diluted earnings per share only if they are *dilutive*. It must be careful to include the individual convertible securities, one at a time, in the proper sequence. If it does not, it may make a mistake by including an antidilutive security in diluted earnings per share. That is, **a convertible security that may appear to be individually dilutive may, in fact, be antidilutive in combination with other convertible securities.**

To determine the sequence in which to include convertible securities in diluted earnings per share, the securities are ranked. This ranking is determined by comparing the individual impacts on diluted earnings per share resulting from the assumed conversion of each convertible security into common shares. To compute this impact, the *if-converted* method is used. Under this method, **each convertible stock or bond is assumed (for computing diluted earnings per share) to have been converted into common stock at the beginning of the earliest period reported** (or at the date of issuance of the security, if later).

This assumed conversion causes two changes in the earnings per share calculation: an increase in the denominator and an increase in the numerator. The denominator increases by the number of common shares issued in the assumed conversion. If bonds are assumed to be converted into common stock, the numerator increases because net income would be larger since the interest expense (net of income taxes) for the converted

bonds would not exist.<sup>9</sup> If preferred stock is assumed to be converted into common stock, the numerator increases because the preferred dividends would not exist.

The numerical value impact on the corporation's diluted earnings per share for each convertible security is computed by dividing the increase in the numerator by the increase in the denominator,<sup>10</sup> as we show in the following equation:

$$\text{Impact on DEPS} = \frac{\text{Increase in Earnings Per Share Numerator}}{\text{Increase in Earnings Per Share Denominator}}$$

After the corporation has computed the impact on its diluted earnings per share for each convertible security, it ranks the securities. The convertible security having the *lowest* impact on diluted earnings per share is listed at the *top* of the ranking, and the other convertible securities are ranked in sequential order so that the security with the *highest* impact is listed at the *bottom* of the ranking. Beginning with the convertible security listed at the top of the ranking, the corporation sequentially enters the dilutive securities into its diluted earnings per share computations.

It is important to understand that the convertible security with the lowest numerical value impact on diluted earnings per share causes the least increase in the numerator relative to the increase in the denominator from the assumed conversion. Consequently, **that security, which has the lowest impact and which causes the greatest decrease in diluted earnings per share, is the most dilutive convertible security and is the first (after options and warrants) to be considered for inclusion in diluted earnings per share.** The ranking enables the corporation to sequentially include dilutive convertible securities in its diluted earnings per share in the descending order of their individual dilutive effect on earnings per share.

Example 17-4 shows the calculation of the impact of each convertible security on diluted earnings per share and the development of the ranking for a corporation that has four convertible securities outstanding the entire year. As you can see, security C has the lowest impact on diluted earnings per share and is the most dilutive. It is the first convertible security (after options and warrants) to be included in diluted earnings per share (assuming it is dilutive).

## Computation of Tentative and Final Diluted Earnings Per Share

As we indicated earlier, a corporation begins the computation of its diluted earnings per share by calculating its basic earnings per share. Then, it computes the increment in shares from the assumed exercise of share options and warrants. It adds this increment to the denominator from basic earnings per share, and calculates an initial tentative diluted earnings per share. Next, it includes the dilutive convertible securities in diluted earnings per share in sequential order according to the ranking we discussed earlier. The convertible security listed at the top of the ranking is considered first. If its impact is *less* than the initial tentative diluted earnings per share, it is dilutive and is included in diluted earnings per share. This involves computing a new numerator and denominator by adding the increase in the numerator and the increase in the denominator resulting from the assumed conversion to the amounts used to compute the initial tentative diluted earnings per share.<sup>11</sup> A second (and lower) tentative diluted earnings per share is computed based on the revised numerator and denominator.

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9. The pretax savings in interest expense includes the interest paid or accrued, plus any bond discount amortization or less any bond premium amortization. The net-of-tax interest-expense savings is computed by multiplying the pretax interest-expense savings times one minus the effective income tax rate.
  10. This and the later discussion dealing with the computation of tentative diluted earnings per share is adapted from the presentation by S. Davidson and R. Weil in "A Shortcut in Computing Earnings Per Share," *Journal of Accountancy* (December, 1975), pp. 45–47.
  11. If no share options or warrants are outstanding, the corporation adds the increases in the numerator and denominator resulting from the assumed conversion of the top-ranked convertible security to the numerator and denominator it used to compute its basic earnings per share.

5 Calculate the impact of a convertible security on diluted EPS.

6 Compute diluted EPS.

**EXAMPLE 17-4** Computation of Impact of Convertible Securities on Diluted Earnings Per Share

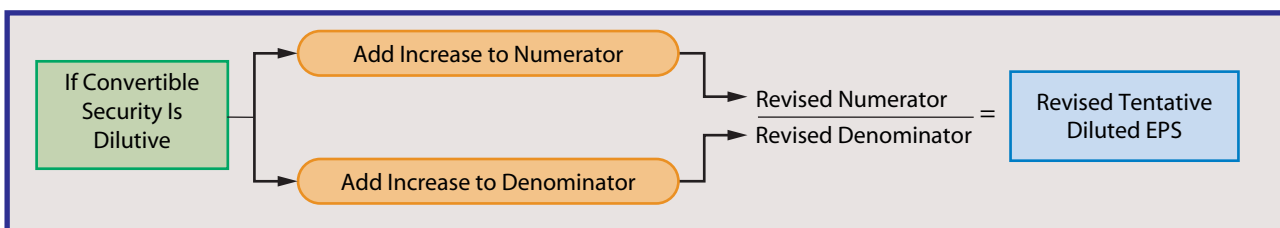
**A. Summary of Convertible Securities**

Security	Description
A	9% convertible preferred stock. Dividends of \$5,400 were declared during the year. The preferred shares are convertible into 3,000 shares of common stock.
B	10% convertible bonds. Interest expense (net of income taxes) of \$4,800 was recorded during the year. The bonds are convertible into 1,920 shares of common stock.
C	8% convertible preferred stock. Dividends of \$8,000 were declared during the year. The preferred shares are convertible into 5,000 shares of common stock.
D	7% convertible bonds. Interest expense (net of income taxes) of \$6,300 was recorded during the year. The bonds are convertible into 3,150 shares of common stock.

**B. Computations and Rankings**

Security	Impact	Order in Ranking
A	$\frac{\$5,400}{3,000} = \$1.80$	2
B	$\frac{\$4,800}{1,920} = \$2.50$	4
C	$\frac{\$8,000}{5,000} = \$1.60$	1
D	$\frac{\$6,300}{3,150} = \$2.00$	3

We show this procedure in the following diagram.



The second convertible security in the ranking is considered next. If its impact is *less* than the previously computed tentative diluted earnings per share, it is dilutive. The increase in the numerator and denominator from this convertible security is added to the revised numerator and denominator and a third (and still lower) tentative earnings per share is computed. This procedure is repeated for each security in the ranking until the impact of the next convertible security is *more* than the previously computed tentative diluted earnings per share (or until the ranking is exhausted). The remaining securities in the ranking are antidilutive and are excluded from diluted earnings per share. The final diluted earnings per share is the last tentative figure. It contains all the dilutive convertible securities included in the tentative diluted earnings per share computations.

If a corporation reports extraordinary gains and losses or results of discontinued operations in its net income, then the comparison of the impact of a convertible security

on earnings per share to test for dilution is different. Instead of comparing the impact to the initial tentative *total* diluted earnings per share, it is compared to the initial tentative diluted earnings per share related to *income from continuing operations* to test for dilution.<sup>12</sup>

Example 17-5 shows the computation of diluted earnings per share for Rush Corporation, assuming (1) share options are outstanding, (2) both convertible bonds and convertible preferred stock are outstanding, and (3) the convertible bonds are dilutive but the convertible preferred stock is antidilutive. The computations result in diluted earnings per share of \$1.94. Note that Rush Corporation reports *both* basic and diluted earnings per share on its income statement. Note, also, that if no ranking had been prepared, and if both the convertible preferred stock and bonds had been included in diluted earnings per share, the corporation would have reported an erroneous \$1.96  $[(\$2,000 + \$800 + \$224) \div (985 + 400 + 160)]$  diluted earnings per share.

## ADDITIONAL CONSIDERATIONS

The previous sections focused on the main issues related to computing earnings per share. Several other issues are relevant to basic and diluted earnings per share. These issues involve conversion ratios, contingent issuances, and disclosures in the notes to the financial statements.

### Conversion Ratios

After issuing convertible securities or share options, a corporation may declare a stock dividend or stock split. Typically, the “conversion ratio” for convertible securities and stock options is proportionally adjusted for the stock dividend or split. For instance, assume a share of preferred stock is convertible into four shares of common stock before a two-for-one stock split on the common stock. *After* the stock split, the preferred stock is convertible into eight shares of common stock. The corporation uses the *current* conversion ratio for convertible securities and share options in its diluted earnings per share computations.

### Contingent Issuances

A corporation may be obligated to issue common shares in the future. This stock is referred to as contingently issuable common stock. Its issuance may depend on satisfying certain conditions, such as attaining or maintaining a certain level of earnings. When no further conditions must be met before issuance, the corporation considers these shares to be outstanding for basic and diluted earnings per share purposes. If the conditions have not been met, if dilutive, the corporation includes the shares in diluted earnings per share. They are included based on the number of shares that would be issuable if the end of the accounting period were the end of the contingency period.

### Additional Disclosures

When a corporation reports its basic and diluted earnings per share on its income statement, it also is required to make additional disclosures in the notes to its financial statements. These include a schedule or note identifying and reconciling the numerators and denominators on which it calculated both basic and diluted earnings per share. For



12. Unless we indicate otherwise, for simplicity we assume in the text and homework that the corporation does not report any of these items in its net income.



**EXAMPLE 17-5 Computation and Reporting of Diluted Earnings Per Share**

1. Income statement information for Rush Corporation:
  - a. Net income for 2007 is \$2,800.
  - b. The income tax rate is 30%.
2. Balance sheet information:
  - a. 900 shares of common stock were outstanding the entire year.
  - b. Options were outstanding the entire year. The assumed exercise of these options results in an increment of 85 shares of common stock.
  - c. 100 shares of 8%, \$100 par (and issuance price) convertible preferred stock were outstanding the entire year. \$800 dividends were declared on this stock in 2007. Each share of preferred stock is convertible into 4 shares of common stock.
  - d. 6% convertible bonds, \$5,000 face value were outstanding the entire year. These bonds were issued to yield 6.5%. Bond interest expense of \$320 was recorded in 2007; the total discount is being amortized at the rate of \$20 per year. Each \$1,000 bond is convertible into 32 shares of common stock.
3. Impact on diluted earnings per share and resulting ranking:

Security	Impact	Ranking
Preferred	$\frac{\$800}{100 \times 4} = \frac{\$800}{400} = \$2.00$	2
Bonds	$\frac{[(\$5,000 \times 0.06) + \$20] \times (1 - 0.3)}{5 \times 32} = \frac{\$224}{160} = \$1.40$	1

4. Diluted earnings per share computations for 2007:

Explanation	Earnings (Adjustments)	÷	Shares (Adjustments)	=	Earnings Per Share
Basic earnings per share	\$2,000 <sup>a</sup>	÷	900	=	\$2.22 Basic
Increment in shares (options)			85		
DEPS <sub>1</sub> earnings and shares	\$2,000	÷	985	=	\$2.03 DEPS <sub>1</sub> <sup>b</sup>
Savings in interest expense (bonds)	224 <sup>c</sup>				
Increment in shares (bonds)			160 <sup>d</sup>		
Diluted earnings and shares	\$2,224	÷	1,145	=	\$1.94 Diluted <sup>e</sup>

- a.  $\$2,000 = \$2,800$  net income  $- \$800$  preferred dividends
- b.  $\$1.40$  is less than  $\$2.03$ ; therefore, the convertible bonds are individually dilutive and are included in diluted earnings per share.
- c.  $\$224 = [(\$5,000 \times 0.06) + \$20] \times (1 - 0.3)$
- d.  $160 = 5$  bonds  $\times 32$  common shares
- e. The  $\$2.00$  impact on diluted earnings per share of the convertible preferred stock is more than  $\$1.94$ ; therefore, inclusion of the preferred stock in diluted earnings per share would be antidilutive.

5. Condensed income statement presentation of Rush Corporation for 2007:

Net income	<u>\$2,800</u>
Earnings per share (see Note A):	
Basic earnings per share	<u>\$2.22</u>
Diluted earnings per share	<u>\$1.94</u>

6. Note A to financial statements: Basic earnings per share is based on 900 average common shares outstanding. Preferred dividends of \$800 are deducted from income before extraordinary items and net income to determine earnings available to common stockholders. Diluted earnings per share is based on 900 average common shares outstanding plus 245 incremental shares from giving effect to the assumed exercise of share options and the conversion of 6% convertible bonds. Earnings available to common stockholders are adjusted for the \$224 savings in interest expense (net of taxes). The 8% convertible preferred stock is antidilutive and is not included in diluted earnings per share. A total of 900 common shares were outstanding at the end of 2007.

example, Rush Corporation could disclose the information included in the schedule in part 4 of Example 17-5. The schedule or note also includes information that:

1. Identifies the amount of preferred dividends deducted to determine the income available to common stockholders.
2. Describes the potential common shares that were *not* included in the diluted earnings per share computation because they were antidilutive.
3. Describes any material impact on the common shares outstanding of transactions after the close of the accounting period but before the issuance of the financial report.<sup>13</sup>

For example, Rush Corporation would disclose the information in part 6 of Example 17-5.

## EPS DISCLOSURE ILLUSTRATION

An illustration of the earnings per share disclosures of **International Business Machines (IBM)** in its 2004 annual report is shown in Real Report 17-1.

### Real Report 17-1 Earnings Per Share Disclosures

INTERNATIONAL BUSINESS MACHINES CORPORATION		
CONSOLIDATED STATEMENT OF EARNINGS (in part)		
In millions, except per share data		
FOR THE YEAR ENDED DECEMBER 31:	2004	2003
Income from Continuing Operations	\$8,448	\$7,613
Discontinued Operations:		
Loss from discontinued operations	18	30
Net Income	<u>\$8,430</u>	<u>\$7,583</u>
Earnings/(Loss) per share of Common Stock:		
Assuming Dilution:		
Continuing Operations	\$ 4.94	\$ 4.34
Discontinued Operations	(0.01)	(0.02)
Total	<u>\$ 4.93</u>	<u>\$ 4.32</u>
Basic:		
Continuing Operations	\$ 5.04	\$ 4.42
Discontinued Operations	(0.01)	(0.02)
Total	<u>\$ 5.03</u>	<u>\$ 4.40</u>
Weighted Average Number of Common Shares Outstanding		
Assuming Dilution	1,708,872,279	1,756,090,689
Basic	1,674,959,086	1,721,588,628



### Questions:

1. What effect did discontinued operations have on earnings per share in 2004? Is this important? Why or why not?
2. Why would the average number of common shares used in the diluted earnings per share computation be more than the weighted average number of common shares used in the basic earnings per share computation?

13. FASB Statement of Financial Accounting Standards No. 128, par. 40 and 41.



## LINK TO INTERNATIONAL DIFFERENCES

International accounting standards and U.S. standards are similar with regard to computing and reporting basic and diluted earnings per share. However, one difference occurs in the application of the treasury stock method for potentially dilutive share options. International standards do not require a company to include any unrecognized compensation cost in the assumed proceeds from issuing the stock. The exclusion of unrecognized compensation cost would result in lower earnings per share amounts under international standards.



### SECURE YOUR KNOWLEDGE 17-1

- A company that has a simple capital structure (only common stock is outstanding) is required to report separate basic earnings per share amounts for income from continuing operations and net income on its income statement, with any per share amounts related to discontinued operations or extraordinary items disclosed either on the income statement or in the notes to the financial statements.
- Basic earnings per share is computed by dividing a company's earnings available to common stockholders by the weighted average number of common shares outstanding.
  - Preferred dividends reduce earnings available to common shareholders unless the preferred stock is noncumulative and no dividends were declared during the year.
  - In the event of a stock dividend or stock split, the number of common shares outstanding at the date of the split are retroactively adjusted as if the stock dividend or split occurred at the beginning of the earliest period presented.
- When securities that have the potential to dilute earnings per share exist (e.g., share options and warrants, convertible preferred stock, convertible bonds), the company has a complex capital structure and, in addition to basic earnings per share, is required to report diluted earnings per share.
- The treasury stock method, used to calculate the dilutive effect of share options and warrants, assumes that the options or warrants were exercised at the beginning of the earliest period presented, and any proceeds obtained from this exercise were used to reacquire common stock at the average market price. The difference between the shares assumed to be issued and the shares assumed to be repurchased is the dilutive effect of the share options or warrants.
- The if-converted method is used to determine the dilutive effect for all other potentially dilutive securities (e.g., convertible preferred stock or convertible bonds). Under this method:
  - The individual impact of each potentially dilutive security is computed (both numerator and denominator effects) as if the security were converted into common stock at the beginning of the earliest period presented; and
  - The securities are ranked in order of their impact on earnings per share, with the most dilutive security being considered first for inclusion in diluted earnings per share.

## CONTENT OF RETAINED EARNINGS

Now that we have discussed earnings per share, we turn to retained earnings. Retained earnings is the primary link between a corporation's income statement and balance sheet. The corporation's assets are financed by liabilities and stockholders' equity. The stockholders' share of assets results primarily from their investments and from net income (earnings) not distributed as dividends. A corporation uses its Retained Earnings account to summarize this latter component of its stockholders' equity.

Most corporations (78%) prefer the account title **Retained Earnings**, with the terms *Earnings* or *Income* (with additional words) used by about 5%. A number of corporations (about 17%) have *negative* retained earnings and use the terms *Retained Earnings (Deficit)* or *Accumulated Deficit* (a **deficit**, or a negative retained earnings balance, is the result of a corporation's accumulated prior net losses or dividends in excess of its earnings).<sup>14</sup>

In addition to net income (or net loss), the primary factors that affect Retained Earnings include (1) dividends, (2) retrospective and prior period adjustments, and (3) appropriations.

## DIVIDENDS

Whereas a corporation's net income increases its assets (and capital) and the corporation records this increase in its retained earnings, the distribution of dividends has the opposite effect. The distribution of cash or property dividends decreases the assets (and capital) and is recorded as a reduction in retained earnings. Thus, the phrase "retained earnings paid out in dividends," or some similar phrase, often found in summaries of corporate financial activities is somewhat misleading. A corporation pays cash (or property dividends) out of *cash* (or some other asset), and reduces its retained earnings (and capital) because the payment is a return *of* capital to the stockholders.

To pay cash or property dividends, a corporation must meet legal requirements and have assets available for distribution. The board of directors is responsible for establishing a dividend policy and determines the amount, timing, and type of dividends to be declared. It must consider the articles of incorporation, applicable state regulations for dividends, the impact on legal capital (established to protect corporate creditors), and compliance with contractual agreements, as well as the financial well-being of the corporation.

Legal requirements for dividends vary from state to state, but most states require a corporation to have a positive (credit) retained earnings balance before it may declare dividends. Also, the amount of dividends it declares generally cannot exceed this retained earnings balance. Usually a corporation must restrict the amount of retained earnings available for dividends by the cost of treasury shares held. However, a few states allow a corporation to declare a dividend equal to the amount of current income even though it may have a prior deficit. In certain instances, some states allow dividends that reduce contributed capital, as long as legal capital is not impaired. Other states may allow a dividend from donated capital but not from other unrealized items in stockholders' equity. Also, contractual agreements (such as long-term bond provisions) may restrict a corporation from declaring dividends. Corporate legal counsel is responsible for reviewing applicable state laws and corporate contracts to determine the legality of dividends. Nonetheless, accountants also should be aware of state regulations and contractual obligations, particularly as they affect restrictions of dividends.

Besides meeting legal requirements, the board of directors must evaluate the financial desirability of a particular dividend. In this case, the board may consult with the corporate accountants. Consideration should be given to the corporation's *financial flexibility* and *operating capability*. Factors such as the impact of a dividend on its current



14. *Accounting Trends and Techniques* (New York: AICPA, 2004), p. 314.

assets and working capital, the ability to finance capital expansion projects, the effect on the stock market price per share, and the ability to maintain a liquidity “cushion” against possible future deteriorating economic conditions should be evaluated. The declaration of a dividend must be in the financial long- and short-term interests of the stockholders.

A corporation’s board of directors may consider several types of dividends, including cash, property, scrip, stock, and liquidating dividends. The impact of each type of dividend upon a corporation’s capital structure is as follows:

1. *cash, property, and scrip dividends*: decrease retained earnings (and stockholders’ equity);
2. *stock dividends*: decrease retained earnings and increase contributed capital by the same amount (so there is no change in total stockholders’ equity);
3. *liquidating dividends*: decrease contributed capital (and stockholders’ equity); and
4. *stock splits*: do not affect the balance of any element of stockholders’ equity.

### Cash Dividends

The most common type of dividend is the cash dividend—the distribution of cash by the corporation to its common (and any preferred) stockholders. When used without a qualifying adjective, the term *dividends* refers to cash dividends.

Four dates are important for a cash dividend (or any type of dividend):

1. the date of declaration,
2. the ex-dividend date,
3. the date of record, and
4. the date of payment.

For instance, on March 17, 2005, **Dollar General** declared a \$0.04 per-share quarterly dividend, payable on April 14, 2005 to stockholders of record on March 31, 2005.

**On the date of declaration, the board of directors formally declares that a dividend will be paid to stockholders of record on a specific future date**, typically four to six weeks later. At this declaration date, the corporation becomes legally liable to pay the dividend. Before this date, stockholders ordinarily have no power to require that a dividend be paid; dividend policy has been legally entrusted to the board of directors. Since the corporation incurs a liability on the date of declaration, it makes a journal entry to reduce retained earnings and record the current liability. It usually reduces (debits) Retained Earnings directly. However, some corporations prefer to use a contra-retained earnings account titled Dividends Declared for the dividends related to each class of stock. It either increases (credits) a current liability, Dividends Payable, or else increases separate liability accounts for the amounts owed to each class of stockholder.

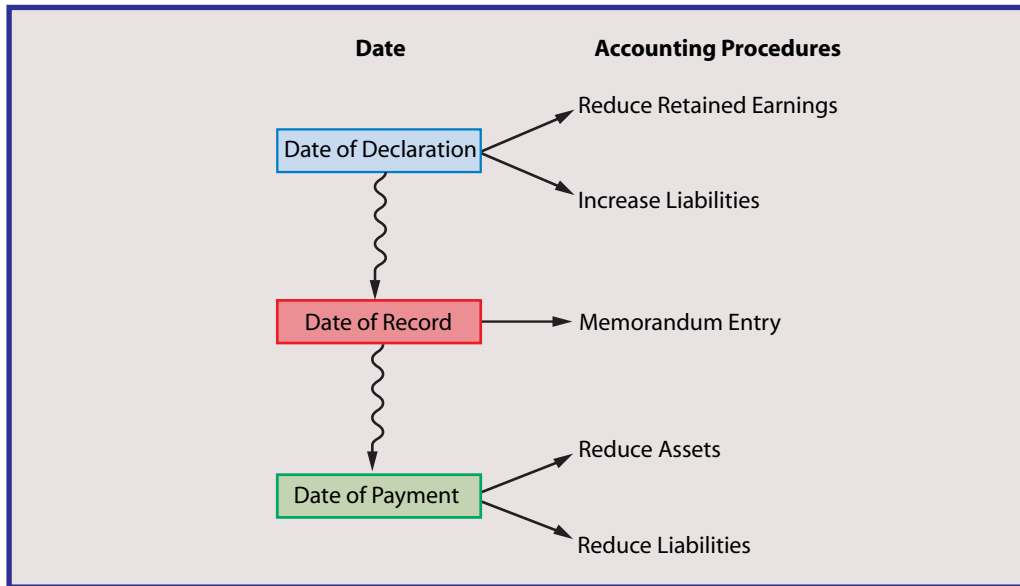
After the date of declaration, the outstanding stock of the corporation trading in the open market normally sells “with dividends attached” (that is, at a higher market price that includes the amount of the future dividend payment). The ex-dividend date occurs several days before the date of record to enable the corporation to update its *stockholders’ ledger* by the date of record. The ex-dividend date is important to investors because **on the ex-dividend date the stock stops selling with dividends attached**. Any purchaser of the stock on or after this date will not receive the current dividend. No accounting entry is required on the ex-dividend date.

Normally, it takes a corporation some time to process the dividend checks. Thus, a “cut-off” date is needed—the date of record. **Only investors listed in the stockholders’ ledger on the date of record can receive the dividend**. The date of record usually occurs several weeks after the declaration date and several weeks before the payment date, as specified in the dividend provisions. On the date of record, the corporation makes a memorandum entry indicating that the date of record has been reached and showing the future dividend payment date.

**On the date of payment, the corporation distributes the dividend checks, and makes a journal entry to eliminate the liability and reduce the cash**. After the date of

payment, the corporation has completed the dividend process. It reports the payment of dividends as a cash outflow in the financing section of its statement of cash flows.

The following diagram summarizes the accounting procedures for a cash dividend.



**Example: Declaration and Payment of Dividends** Assume that on November 2, 2007, the board of directors of Bay Corporation declares preferred dividends totaling \$10,000 and common dividends totaling \$20,000. These dividends are payable on December 14, 2007 to stockholders of record on November 23, 2007. The corporation makes the following journal entries to record the dividend:

November 2, 2007

Retained Earnings	30,000	
Dividends Payable: Preferred Stock		10,000
Dividends Payable: Common Stock		20,000

November 23, 2007

**Memorandum entry:** The company will pay dividends on December 14, 2007, to preferred and common stockholders of record as of today, the date of record.

December 14, 2007

Dividends Payable: Preferred Stock	10,000	
Dividends Payable: Common Stock	20,000	
Cash		30,000

If its accounting period ends before the dividend payment, Bay Corporation reports the Dividends Payable account(s) as a current liability on its balance sheet. If it uses the contra account, Dividends Declared, it closes this account directly to Retained Earnings as part of the year-end closing process. ♦

7 Record the declaration and payment of cash dividends.



### Participating Preferred Stock

Usually the amounts of dividends payable to each class of stock can be easily determined. In certain cases, however, preferred stock may be either fully or partially participating. In these cases, a corporation must compute the dividends payable to preferred and common stockholders. Recall from Chapter 16 that *fully participating* preferred stock shares equally with the common stock in any extra dividends. These extra dividends are distributed



proportionally, based on the respective *total* par values of each class of stock. *Partially participating* preferred stock is limited in its participation to a fixed rate (based on the respective par value) or amount per share.

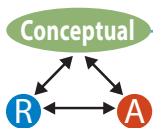
**Example: Participating Preferred Stock Dividends** Assume that Everett Corporation has issued 10%, participating, cumulative preferred stock with a total par value of \$20,000 and common stock with a total par value of \$30,000. Therefore, preferred stock is 40% and common stock is 60% of the total par value. The corporation intends to distribute cash dividends of \$9,000, and there are no dividends in arrears. Example 17-6 shows the dividend distribution assuming (a) the preferred stock is fully participating, or (b) the preferred stock participates up to 12% of its par value. If any preferred stock dividends were in arrears, these would be distributed *before* any participation calculations. In the participation calculations, common stock initially receives a rate equal to preferred stock *for the current year*. Common stock does *not* share in any dividends in arrears. ♦

#### EXAMPLE 17-6 Dividend Distribution

	Preferred	Common
<b>(a) Preferred Stock Is Fully Participating</b>		
10% dividend to Preferred (on \$20,000 par)	\$2,000	
Common dividend (equal to 10% of \$30,000 par)		\$3,000
Extra dividend proportionate to par values:		
Total to allocate	\$9,000	
Allocated (\$2,000 + \$3,000)	(5,000)	
Remainder (40% to preferred, 60% to common)	\$4,000	
Dividends to each class of stock	<u>1,600</u>	<u>2,400</u>
	<u>\$3,600</u>	<u>\$5,400</u>
<b>(b) Preferred Stock Participates up to 12%</b>		
10% dividend to Preferred	\$2,000	
Common dividend (equal to 10% of par)		\$3,000
2% dividend on par of Preferred (2% × \$20,000)	400	
2% dividend on par of Common (2% × \$30,000)		600
Remainder to common (\$9,000 – \$6,000 allocated)		<u>3,000</u>
Dividends to each class of stock	<u>\$2,400</u>	<u>\$6,600</u>

### Property Dividends

Occasionally, a corporation will declare a **property dividend that is payable in assets other than cash**. The corporation typically uses marketable securities of other companies that it owns for the property dividend because they can be distributed more easily to the stockholders. However, it may pay the dividend with any assets designated by its board of directors.



A property dividend is classified as a *nonreciprocal, nonmonetary transfer to owners*. That is, the corporation enters into an exchange in which it gives up something of value (the asset) but for which it receives no asset or service in return. Also, because no cash is involved, the exchange is a nonmonetary transfer. According to **APB Opinion No. 29**, a corporation records a property dividend at the fair value of the asset transferred, and recognizes a gain or a loss.<sup>15</sup>

15. "Accounting for Nonmonetary Transactions," *APB Opinion No. 29* (New York: AICPA, 1973), par. 18.

The logic behind using fair value for a property dividend is that the corporation could have sold the assets distributed in the dividend for cash and used the proceeds (fair value) to pay a cash dividend. The fair value is determined *on the date of declaration* (because this is the date the dividend becomes a legal liability) by referring to existing stock or bond market prices, recent cash exchanges of similar assets, or objective independent appraisals.

**Example: Bonds Distributed as Project Dividend** Assume the board of directors of Asel Corporation declares a property dividend, payable in bonds of Bard Company being “held to maturity” (in accordance with paragraph 8 of *FASB Statement No. 115*). The bonds are carried on Asel Corporation’s books at a book value of \$40,000 but their current fair value is \$48,000. On the date of declaration, the corporation revalues the investment account to its fair value and records the dividend obligation at this value so that the amounts of both the gain and the dividend liability are properly reported. Asel Corporation makes the following journal entries to record this property dividend:

Date of Declaration

Investment in Bard Company Bonds (\$48,000 – \$40,000)	8,000	
Gain on Disposal of Investments		8,000
Retained Earnings	48,000	
Property Dividends Payable		48,000

Date of Payment

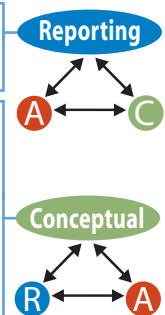
Property Dividends Payable	48,000	
Investment in Bard Company Bonds		48,000

On the date of payment, Asel Corporation does not adjust the gain or loss, even though the fair value may have changed since the date of declaration. It reports the gain or loss in the Other Items section of its income statement. If the corporation will not pay the dividend until next year, it reports the dividend liability as a current liability on its balance sheet. ♦

In the case where a corporation distributes “available-for-sale” debt or equity securities (as defined in *FASB Statement No. 115*) as a property dividend, the computation of the gain or loss is more complex because the corporation must consider any previously recorded unrealized increase or decrease in value. The corporation is carrying its investment in available-for-sale securities (whether current or noncurrent) at the fair value (by use of an Allowance account) of the securities *on the last balance sheet date*. It is also reporting an “unrealized increase (or decrease) in value” amount (whose balance is the difference between the cost and the fair value) in its accumulated other comprehensive income section of its stockholders’ equity as we discussed in Chapter 15. However, the realized gain or loss on this type of property dividend is computed as the difference between the fair value of the securities *on the date of declaration* and the original *cost* of the securities. The journal entry that the corporation makes on the date of declaration to revalue the investment (by adjusting the Allowance account) and to record the realized gain or loss also must eliminate the unrealized increase (decrease) in value for these securities.

**Example: Stock Distributed as Property Dividend** Assume Cleek Corporation declares a property dividend on March 14, 2008, payable in Dunn Company stock. The Dunn Company stock was purchased early in 2007 for \$24,000 and was reported as an asset at a fair value of \$29,000 (i.e., at a cost of \$24,000 plus an allowance for an increase in value of \$5,000, along with an unrealized increase in value of \$5,000 reported in its accumulated other comprehensive income) on the December 31, 2007 balance sheet. If the market value is \$31,000 on March 15, 2008, the gain is \$7,000, computed by comparing the current fair value (\$31,000) to the original cost (\$24,000).

8 Account for a property dividend.



Cleek Corporation makes the following journal entries on the date of declaration to record this property dividend:

Allowance for Change in Value of Investment in Available-for-Sale Securities	2,000	
Unrealized Increase in Value of Available-for-Sale Securities	5,000	
Gain on Disposal of Investments		7,000
Retained Earnings	31,000	
Property Dividends Payable		31,000

Cleek Corporation makes the following journal entry on the date of payment to record the distribution of the securities to stockholders:

Property Dividends Payable	31,000	
Investment in Available-for-Sale Securities		24,000
Allowance for Change in Value of Investment in Available-for-Sale Securities		7,000 ♦

### Scrip Dividends

As we discussed earlier, in establishing dividend policy, the board of directors must consider both the legal requirements and the corporation's financial status. A corporation may have adequate retained earnings to meet the legal dividend requirements but insufficient cash to justify a current cash dividend. In this case, it may declare a **scrip dividend**. Here, the corporation issues promissory notes (called "scrip") requiring it to pay dividends at some future date. It makes the usual journal entries on the date of declaration (although some companies may credit Notes Payable instead of Dividends Payable) and date of payment, except when the notes carry an interest rate. In this case, it also records interest expense on the date of payment. If the corporation will not make the scrip payment until next year, it must make a year-end adjusting entry to record accrued interest expense. It must review the maturity date to determine the proper classification of the dividend liability on the balance sheet. Scrip dividends are rare, however. If a corporation is having liquidity problems, it is usually unwise for the board of directors to commit it to cash outflows, even if these would be made in the future.

### Stock Dividends

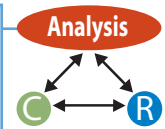
Another type of dividend that a corporation may declare and distribute is a stock dividend. A **stock dividend is a proportional (pro rata) distribution of additional shares of a corporation's own stock to its stockholders**. For instance, on March 17, 2005, **Sun Bancorp** of New Jersey declared a 5% stock dividend, distributable on April 20, 2005 to stockholders of record on April 6, 2005.

A stock dividend usually consists of the same class of shares; that is, a common stock dividend is declared on common stock outstanding. This type of distribution is called an *ordinary* stock dividend. The distribution of a different class of stock (common on preferred or preferred on common) sometimes is called a *special* stock dividend. A corporation usually issues a stock dividend out of authorized but unissued shares, although it may use shares of treasury stock. Unlike other dividends, a corporation may legally rescind the declaration of a stock dividend. A stock dividend also differs from other dividends in that *no corporate assets are distributed*. Each stockholder maintains the same percentage ownership in the corporation as was held prior to the distribution.

Stockholders often view stock dividends favorably even though (1) they receive no corporate assets, (2) their percentage ownership does not change, (3) theoretically the total market value of their investment will remain the same because the decrease in the stock market price per share will be offset by the increased number of shares each stockholder

owns, and (4) future cash dividends may be limited because retained earnings is decreased by the amount of the stock dividend and most states set legal dividend restrictions based on positive retained earnings. However, the following factors may enhance the perceived attractiveness of a stock dividend:

1. The stockholders may see the stock dividend as evidence of corporate growth.
2. The stockholders may see the stock dividend as evidence of sound financial policy.
3. Other investors may see the stock dividend in a similar light, and increased trading in the stock may cause the market price *not* to decrease proportionally.
4. The corporation may state that it will pay the same fixed cash dividend per share, in which case individual stockholders will receive higher total future cash dividends.
5. The stockholders may see the market price decreasing to a lower trading range, making the stock more attractive to additional investors so that the market price may eventually rise.

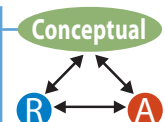


## LINK TO ETHICAL DILEMMA

The CEO of Advanced Micro Technologies (AMT) is extremely upset and has just called an emergency meeting of her management team. She has just learned that, for the third time in four months, a key executive has left the company to pursue a better-paying opportunity with a competitor. The CEO is concerned that without a proper incentive compensation plan, the company will lose several other key executives and the company's future could be in jeopardy. The CEO has determined that the modest returns predicted for the stock market over the next several years have led many of the departed executives to conclude that the company's share option plan will not produce the large gains that were historically observed. Based on analysis of a highly respected compensation consulting firm, the CEO has proposed eliminating the share option plan and replacing it with a restricted stock plan. Under the CEO's plan, company executives would be given shares of restricted stock that could not be sold unless the executive remained with AMT for 10 years. If the employee were to leave prior to the 10-year period, the shares would be forfeited. It is the CEO's belief that such a plan would increase retention. Furthermore, the restricted stock plan has three other features that make it attractive. First, because restricted stock consists of actual shares rather than the option to buy future shares, the company will grant fewer shares than it would under the share option plan, resulting in lower compensation expense and higher income. Second, executives would also receive dividend payments on the restricted stock, even if the stock has not vested. Therefore, by increasing the dividend, the company could actually pay the executives a "cash bonus" without having to recognize compensation expense. Finally, employees will have something of value, even if the stock price doesn't increase. As the accountant for AMT, what is your reaction to the CEO's proposal?

### Conceptual Issues for Stock Dividends

The **economic substance** of a stock dividend is that it is not really a "dividend" but instead is similar to a stock split. In both cases, even though the number of shares increases, a corporation does not distribute any assets to the stockholders and each stockholder's percentage ownership stays the same. So, the corporation's total assets and stockholders' equity



remain unchanged. To show the similar economic substance, in theory a corporation should record a stock dividend like a stock split.

From an accounting standpoint, however, a corporation does *not* account for a stock dividend like a stock split, but instead records it like other dividends. When a stock dividend is recorded, total stockholders' equity is not changed. Retained earnings is decreased by the amount of the "dividend," and contributed capital is increased by the same amount because of the additional shares issued. This treatment is based on an "opportunity cost" argument. That is, the corporation should record the "dividend" at the fair value of the stock because this is the value it forgoes to issue the stock dividend.

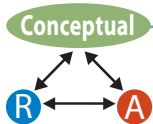
Under this method, the fair value may be determined by assuming the stock is sold for cash at the current market price and the proceeds used to pay a cash dividend. The appropriate fair value at which to record the stock dividend is the market price *after* the declaration of the dividend. If a very small number of shares were issued in a stock dividend, this would cause only a small decrease in the market price. Larger stock dividends would cause greater decreases in the market price. To use this fair value approach, a method for estimating the decrease in fair value would need to be developed. However, no such method has been implemented. Instead, a distinction is made between "small" and "large" stock dividends, and different generally accepted accounting principles apply to each.

### GAAP for Stock Dividends

In the case of a **small stock dividend** (presumably having no apparent effect on the market price per share), the Committee on Accounting Procedure accepted the view that a stock dividend is like a simultaneous sale of stock and payment of a dividend. **Therefore, a corporation accounts for a small stock dividend by transferring from retained earnings to contributed capital an amount equal to the fair value of the additional shares issued.** In distinguishing between a small and a large stock dividend, the Committee said that **fair value is ordinarily the appropriate value to use whenever the stock dividend (that is, small dividend) is less than 20 or 25% of the previously outstanding shares.**

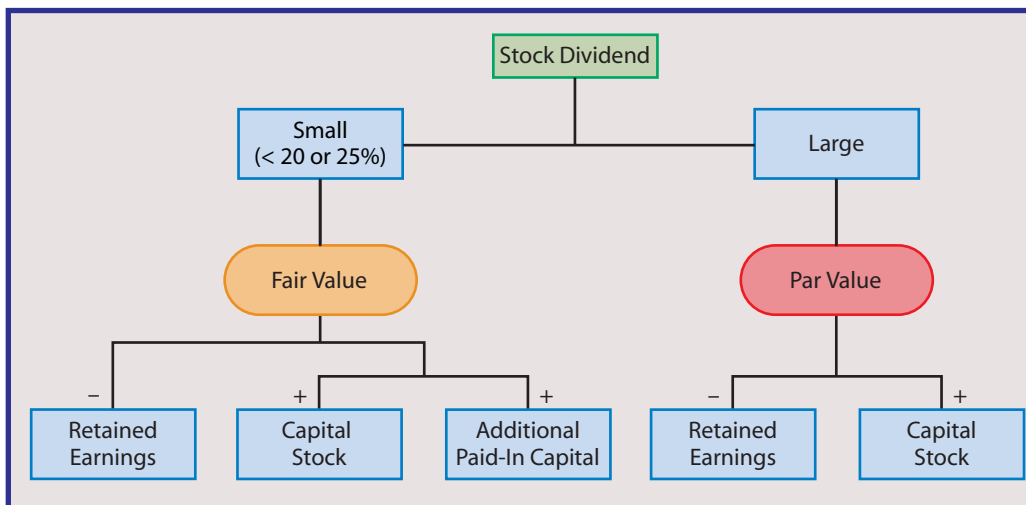
State legal requirements govern the *minimum* amount that a corporation must capitalize (transfer from retained earnings to contributed capital as part of legal capital) for a stock dividend. Generally, this amount is the par or stated value of the additional shares distributed. The accounting for a large stock dividend relates to this legal capital. **Therefore, a corporation accounts for a large stock dividend by transferring from retained earnings to contributed capital an amount equal to the par value of the additional shares issued.** In this case, the Committee suggested that the use of the term *dividend* be avoided or, when this is not possible because of legal restrictions, the transaction should be described in terminology such as *a stock split effected in the form of a dividend*.<sup>16</sup>

Given the Committee's acceptance of the argument that a stock dividend should be based on fair value, use of par value to record a large stock dividend seems inappropriate. Par value has no direct relationship to fair value. Also, use of par value for large stock dividends and fair value for small stock dividends can lead to illogical accounting results. For example, assume a corporation with 2,000 shares of \$10 par common stock outstanding issued a 15% (300 shares) small stock dividend when the market price per share is \$40. In this case it would reduce retained earnings and increase contributed capital by \$12,000. If it issued a 50% (1,000 shares) large stock dividend, the corporation would reduce retained earnings and increase contributed capital by only \$10,000. In this example, a small stock dividend has a greater effect on the components of the corporation's stockholders' equity than a large stock dividend! Nonetheless, use of fair value to record a small stock dividend and use of par value to record a large dividend are generally accepted accounting principles. The following diagram shows the effects on the various elements of stockholders' equity of a small and large stock dividend, respectively.



9 Explain the difference in accounting for small and large stock dividends.

16. "Restatement and Revision of Accounting Research Bulletins," *Accounting Research Bulletin No. 43* (New York: AICPA, 1961), ch. 7, sec. B, par. 10 and 11.



To show the accounting for the two sizes of stock dividend, assume Ringdahl Corporation has the following stockholders' equity prior to the stock dividend:

Common stock, \$10 par (20,000 shares issued and outstanding)	\$200,000
Additional paid-in capital	180,000
Retained earnings	<u>320,000</u>
Total Stockholders' Equity	<u>\$700,000</u>

Note that in this example there are 20,000 shares issued and outstanding; therefore, there is no treasury stock. Treasury stock normally does not participate in a small stock dividend because the dividend is based on the outstanding shares of stock. However, treasury stock may participate in a large stock dividend because the dividend is considered to be similar to a stock split.

### Example: Small Stock Dividend

Assume that Ringdahl Corporation declares and issues a 10% stock dividend. On the date of declaration, the stock is selling for \$23 per share. The corporation records the 2,000-share stock dividend at the fair value of \$46,000, as we show in the following journal entries:

#### Date of Declaration

Retained Earnings	46,000	
Common Stock To Be Distributed		20,000
Additional Paid-in Capital From Stock Dividend		26,000

#### Date of Issuance

Common Stock To Be Distributed	20,000	
Common Stock, \$10 par		20,000

Ringdahl's resulting stockholders' equity is as follows:

Common stock, \$10 par (22,000 shares issued and outstanding)	\$220,000
Additional paid-in capital	206,000
Retained earnings	<u>274,000</u>
Total Stockholders' Equity	<u>\$700,000</u>

Note that the amounts of the components of Ringdahl Corporation's stockholders' equity have changed, but its total stockholders' equity (\$700,000) remains the same as before the small stock dividend.





If a corporation prepares a balance sheet after the declaration but before the issuance of the stock dividend, it reports the Common Stock To Be Distributed account as a component of Contributed Capital. The account is *not* a liability like the dividend payable accounts related to other types of dividends because it will not be satisfied by the distribution of assets. Instead, it is a temporary stockholders' equity item representing the legal capital related to the stock to be issued. As we showed, it is eliminated when the stock is issued. ♦

### Example: Large Stock Dividend

Assume, *instead*, that Ringdahl Corporation declares and issues a 40% stock dividend when the stock is selling for \$23 per share. In this case, the corporation uses the par value of \$80,000 for the 8,000 shares to record the stock dividend as follows:

<u>Date of Declaration</u>		
Retained Earnings	80,000	
Common Stock To Be Distributed		80,000
<u>Date of Issuance</u>		
Common Stock To Be Distributed	80,000	
Common Stock, \$10 par		80,000



The resulting stockholders' equity is as follows:

Common stock, \$10 par (28,000 shares issued and outstanding)	\$280,000
Additional paid-in capital	180,000
Retained earnings	<u>240,000</u>
Total Stockholders' Equity	<u>\$700,000</u>

Note again that Ringdahl's total stockholders' equity (\$700,000) remains the same as before the large stock dividend. ♦

### Fractional Shares

In the case of a stock dividend, the number of shares that many stockholders own will not entitle them to receive additional whole shares from the dividend. For example, if a corporation declared a 10% stock dividend, a stockholder owning 43 shares would be entitled to 4.3 additional shares. Some corporations have a policy of not issuing fractional shares. These corporations usually offer stockholders two alternatives: (1) to receive cash equal to the market price of the fractional share, or (2) to pay in sufficient cash to receive a full share. In the first case, the corporation accounts for the cash it pays as a cash dividend and issues fewer shares. In the second case, it records the stock dividend in the usual manner and adjusts contributed capital for the cash it receives.

### Liquidating Dividends

**Liquidating dividends** represent a return of contributed capital rather than a distribution of retained earnings. A corporation usually declares these dividends when it is ceasing or reducing operations. A liquidating dividend also may arise when a natural resources corporation pays a dividend based on earnings before depletion. That portion of the dividends equal to the amount of depletion is considered the liquidating dividend.

When a corporation pays a dividend that is in part (or in total) a liquidating dividend, it must adhere to state legal requirements in recording the dividend. It records the *normal* portion of the dividend as a reduction of retained earnings and the *liquidating* portion as a reduction of contributed capital. The latter may be recorded as a debit either to an additional paid-in capital account or to a special contra-contributed capital account entitled, for instance, Contributed Capital Distributed as a Liquidating Dividend. The corporation should disclose the liquidating dividend in a note to its financial statements to notify stockholders that a portion of contributed capital is being returned.



## SECURE YOUR KNOWLEDGE 17-2

- Four important dates for any type of dividend are the:
  - Date of declaration—the date the board of directors formally declares that a dividend will be paid and the dividend becomes a liability of the company;
  - Ex-dividend date—the date the stock stops selling with the right to receive dividends (usually several days before the date of record);
  - Date of record—only registered owners of stock on this date will receive a dividend; and
  - Date of payment—the date the dividend is distributed and the liability is eliminated.
- A property dividend (a dividend payable in assets other than cash) is recorded at fair value, which involves revaluing the property to be distributed to fair value and recognizing a gain or loss for the difference between the fair value and the carrying value.
- A company without enough cash to justify paying a cash dividend may declare a scrip dividend, which obligates the company to pay the dividend plus interest at a future date.
- A stock dividend, the distribution of additional shares of stock to a company's shareholders, does not change total stockholders' equity and is accounted for based on the size of the dividend:
  - A small stock dividend (less than 20 or 25% of the outstanding shares) transfers the fair value of the shares issued from retained earnings to contributed capital.
  - A large stock dividend (more than 20 or 25% of the outstanding shares) transfers the par value of the shares issued from retained earnings to contributed capital.
- Liquidating dividends are a return of contributed capital rather than a distribution of retained earnings.



## LINK TO RATIO ANALYSIS

Investors, creditors, and others use various measures to assess how effective a company has been at meeting its profit objective. While one such measure (earnings per share) has been discussed earlier in the chapter, two other measures are often used—price/earnings ratio and dividend yield. The price/earnings ratio measures the market's assessment of future earnings potential of the company. While price/earnings ratios should be evaluated in the context of the industry in which the company operates, higher price/earnings ratios relative to other similar companies are generally interpreted as a positive signal regarding a company's future prospects. Using information obtained from the 2004 annual report, **McDonald's Corporation's** price/earnings ratio at December 31, 2004 can be computed as:

$$\text{Price/Earnings Ratio} = \frac{\text{Market Price per Common Share}}{\text{Earnings Per Share}} = \frac{\$32.06}{\$1.81} = \$17.71$$

Another useful measure of stockholder profitability is dividend yield. This ratio provides investors with information pertaining to the rate of return that was received in cash dividends. For McDonald's, the dividend yield for the fiscal year ending December 31, 2004 was:

$$\text{Dividend Yield} = \frac{\text{Dividends per Common Share}}{\text{Market Price per Common Share}} = \frac{\$0.55}{\$32.06} = \$0.017$$

The dividend yield, together with the percentage change in the market price of the stock held during the period, is the total return on the stockholders' investment.



## PRIOR PERIOD ADJUSTMENTS (RESTATEMENTS)

Corporations are required to report a few events as either retrospective adjustments or prior period adjustments (restatements) of retained earnings. These include changes in accounting principles, a change in accounting entity, and corrections of errors of prior periods.<sup>17</sup> We discuss the specific accounting treatment of these items in Chapter 23. The following discussion illustrates prior period adjustments by focusing on corrections of errors and their impact on retained earnings.

A corporation may make an error in the financial statements of one accounting period that it does not discover until a later period. These errors may be due to oversights, the incorrect use of existing facts, mathematical mistakes, or errors in applying accounting principles. Usually these errors affect an asset or liability and a revenue or expense of a prior year. A corporation is required to treat corrections of all material errors as prior period adjustments (restatements) of retained earnings. That is, in the year of correction, the asset or liability account balance is corrected (debited or credited). The offsetting credit or debit (which involved a revenue or expense previously closed to retained earnings) is made directly to the Retained Earnings account (or to an

account such as Correction of Prior Years' Income Due to Material Error in . . .). If the latter account is used, it is closed directly to Retained Earnings in the year-end closing entries. Any related impact on income taxes is similarly recorded.

**Example: Prior Period Adjustment** Assume that in 2008 Fox Corporation discovers that it inadvertently did not accrue \$10,000 of interest expense for 2007. This material error overstated 2007 income before income taxes by a similar amount. Assuming a related income tax effect of \$3,000, Fox makes the following correcting entries in 2008:

Retained Earnings (or Correction of Prior . . .)	10,000	
Interest Payable		10,000
Income Tax Refund Receivable	3,000	
Retained Earnings (or Correction of Prior . . .)		3,000

When a corporation makes a prior period adjustment, it reports the item (net of the applicable income taxes) as an adjustment of the beginning balance of retained earnings on its statement of retained earnings. If the January 1, 2008 retained earnings balance of the Fox Corporation was \$102,400, it reports the correction on its December 31, 2008 statement of retained earnings as a prior period adjustment as follows:

Retained earnings, as previously reported January 1, 2008	\$ 102,400
Less: Correction of overstatement in 2007 net income due to interest expense understatement (net of \$3,000 income taxes)	<u>(7,000)</u>
Adjusted retained earnings, January 1, 2008	\$ 95,400

Fox then completes the remaining portion of the statement as we show in Example 17-7 later in the chapter. It discloses the effect of the error on the prior year's net income and earnings per share in the period in which the correction is made. With these disclosures, users can see the impact of the error on the company's financial statements. If Fox presents comparative financial statements, it makes corresponding adjustments to its net income, retained earnings, asset, or liability account balances for all the periods reported.<sup>18</sup> ♦



17. "Accounting Changes and Error Corrections," *FASB Statement of Financial Accounting Standards No. 154* (Norwalk, Conn.: FASB, 2005), par. 4–26.

18. *Ibid.*, par. 25 and 26 and "Reporting the Results of Operations," *APB Opinion No. 9* (New York: AICPA, 1966), par. 18 and 26.

## RESTRICTIONS (APPROPRIATIONS) OF RETAINED EARNINGS

A corporation's board of directors is responsible for establishing dividend policy, while following legal requirements and sound financial practice. Stockholders sometimes consider only the legal requirements. As the corporation's Retained Earnings account balance increases, they may expect to be paid higher dividends. However, the corporation must use the *assets* represented by retained earnings for many activities, including financing on-going operations and long-term expansion projects, paying the principal and interest on debt securities, and paying dividends.

To indicate that a certain portion of retained earnings is not available for dividends, a corporation may restrict (appropriate) retained earnings. A **restriction (appropriation)** of retained earnings means that the board of directors establishes a formal policy that a portion of retained earnings is unavailable for dividends. It is important to understand that such a policy does *not* directly restrict the use of any assets. It merely requires that the corporation not distribute any assets that would reduce this restricted retained earnings. A board of directors may restrict retained earnings (1) to meet *legal* requirements, or (2) to meet *contractual* restrictions.

Corporations must follow the laws of the state in which they are incorporated. Certain states require restrictions of retained earnings when a corporation reacquires its own stock as treasury stock. Usually, the restriction is in an amount equal to the cost of the treasury shares. The argument for this restriction is that acquiring treasury stock reduces the amount of invested (permanent) capital. By restricting retained earnings for an equal amount, the corporation's permanent capital is not impaired.

A corporation also may restrict retained earnings because of a contractual agreement. This type of agreement may be made when a corporation issues long-term bonds. To provide some assurance that sufficient assets will be kept in the corporation to satisfy bondholders' claims, the bond provisions (sometimes called "debt covenants") may require the restriction of a certain amount of retained earnings.

Corporations disclose restrictions of retained earnings in a note (or sometimes by parenthetical notations) to the financial statements. In the note, a clear description of the legal or contractual provisions and the amount of the restriction is required. For example, assume Johnstone Corporation has a \$300,000 retained earnings balance when it acquires treasury stock at a cost of \$20,000. It would report the \$300,000 retained earnings balance and disclose the restriction of retained earnings as follows:

Retained earnings (see Note A)	\$300,000
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*Notes to the Financial Statements*

*Note A:* Retained earnings are restricted in the amount of \$20,000, the cost of the treasury stock.

When a corporation cancels a restriction (because, for instance, it no longer has treasury stock), it does not include the note in its financial statements.



## STATEMENT OF RETAINED EARNINGS

Although not a required separate financial statement, many corporations include a statement of retained earnings in their financial statements. To disclose the earnings, dividends, prior period adjustments, and other reductions, we suggest the format shown in Example 17-7.

A corporation may include the retained earnings statement as a separate statement within the financial statements, as a supporting schedule directly beneath the income statement, or, as is common, in the statement of changes in stockholders' equity which we discuss later in the chapter. Although the format in Example 17-7 includes all items affecting retained earnings, prior period adjustments, reductions because of conversions, or reductions because of the retirement of capital stock are relatively rare. A retained earnings statement usually includes only adjustments to retained earnings for net income and

**EXAMPLE 17-7** Statement of Retained Earnings for 2007

Retained earnings, as previously reported, January 1, 2007
Plus (minus): Prior period and retrospective adjustments (net of income tax effect)
Adjusted retained earnings, January 1, 2007
Plus (minus): Net income (loss)
Minus: Dividends (specifically identified, including per share amounts)
Reductions because of retirement or reacquisition of capital stock
Reductions because of conversion of bonds or preferred stock
Retained earnings, December 31, 2007

dividends. Any restrictions of retained earnings are disclosed in a note to the financial statements.

**Illustration of Retained Earnings Statement**

We show the 2004 and 2003 consolidated statements of retained earnings for Merck & Co., Inc. in Real Report 17-2.

**Real Report 17-2 Retained Earnings Statement****MERCK & CO., INC. AND SUBSIDIARIES**

## CONSOLIDATED STATEMENT OF RETAINED EARNINGS

(\$ in millions)	Years Ended December 31	
	2004	2003
Balance, January 1	\$34,142.0	\$35,434.9
Net Income	5,813.4	6,830.9
Common Stock Dividends Declared	(3,329.1)	(3,264.7)
Spin-off of MedCo Health	—	(4,859.1)
Balance, December 31	<u>\$36,626.3</u>	<u>\$34,142.0</u>

**Questions:**

1. Why does the company use the term “Common Stock Dividends Declared” in this statement?
2. What is the common stock dividend as a percentage of net income for 2004 and 2003? What does this indicate?
3. Why does the spin-off of MedCo Health affect retained earnings?

**Accumulated Other Comprehensive Income**

As we discussed in Chapters 4 and 5, a corporation is required to report its total comprehensive income for the accounting period. Comprehensive income includes both net income and “other comprehensive income.” Other comprehensive income (loss) might include four items:

- unrealized increases (gains) or decreases (losses) in the market (fair) value of investments in available-for-sale securities,
- translation adjustments from converting the financial statements of a company’s foreign operations into U.S. dollars,
- certain gains and losses on “derivative” financial instruments, and
- certain pension liability adjustments.

**10** Understand how to report accumulated other comprehensive income.



A corporation may report its comprehensive income (net of income taxes) on the face of its income statement, in a separate statement of comprehensive income, or in its statement of changes in stockholders' equity. We showed these alternatives in Chapter 5.

A corporation includes its total net income *earned to date* in its retained earnings amount which it reports in its stockholders' equity. The corporation includes its other comprehensive income (or loss) *accumulated to date* in its **accumulated other comprehensive income (or loss)** amount<sup>19</sup> which it also reports in its stockholders' equity. If a corporation has more than one type of comprehensive income, it has a choice. It may report the amount of accumulated other comprehensive income for *each item* in its stockholders' equity. Or, it may report the *total amount* of accumulated other comprehensive income for *all the items* in its stockholders' equity. If the corporation uses this approach, it must disclose the amounts for each of the items in the notes to its financial statements.<sup>20</sup> Unless a corporation has miscellaneous items of stockholders' equity (which we discuss next), it adds the totals for contributed capital, retained earnings, and accumulated other comprehensive income (and subtracts the cost of any treasury stock) to determine its total stockholders' equity.



## MISCELLANEOUS CHANGES IN STOCKHOLDERS' EQUITY

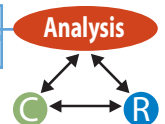
In rare instances, a corporation may increase stockholders' equity for events not related to the issuance of stock or to retained earnings. For example, as we discussed in Chapter 10, it is possible for a corporation to receive donated assets (e.g., a plant site) from a governmental unit to induce it to locate in a particular community. Since this is a nonreciprocal, nonmonetary transfer, the corporation records the asset at its fair value. It records the resulting credit in a Donated Capital account. The *discovery value* of natural resources is another example. Here, a corporation might record an increase in assets and stockholders' equity as a result of the discovery of previously unknown valuable natural resources. A corporation lists these items separately in its stockholders' equity.

## STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY

A corporation may engage in various transactions that affect some component of its stockholders' equity. FASB **Statement of Concepts No. 5** suggests that a full set of financial statements should show investments by and distributions to owners during the period. To inform external users of a corporation's financial statements about its capital activities, APB **Opinion No. 12** states:

. . . disclosure of changes in the separate accounts comprising stockholders' equity (in addition to retained earnings) and of the changes in the number of shares of equity securities during at least the most recent annual fiscal period . . . is required to make the financial statements sufficiently informative.<sup>21</sup>

Thus, a corporation must disclose the changes in the different classes of common stock, additional paid-in capital, retained earnings, accumulated other comprehensive income, and treasury stock in its annual report. The intent is to help report on the changes in the corporation's financial structure to help users assess its *financial flexibility*, *profitability*, and *risk*. Most corporations prepare a statement of changes in stockholders' equity that includes an analysis of the changes in these items. The ending amounts in this statement then tie to the stockholders' equity section of the year-end balance sheet. Also, if a corporation chooses to report its comprehensive income on its statement of changes in stockholders' equity, it must include this statement as a *major* financial statement.



**11** Prepare a statement of changes in stockholders' equity.

19. This amount may create deferred taxes and is reported net of taxes. However, since we do not discuss deferred taxes until Chapter 19, for simplicity we ignore the tax effect in this chapter.

20. "Reporting Comprehensive Income," *FASB Statement of Financial Accounting Standards No. 130* (Norwalk, Conn.: FASB, 1997), par. 17 and 26.

21. "Omnibus Opinion—1967," *APB Opinion No. 12* (New York: AICPA, 1967), par. 10.



Examples 17-8 and 17-9 show a statement of changes in stockholders' equity and the ending stockholders' equity for the hypothetical Bardwell Corporation.<sup>22</sup> Notice the interrelated amounts in both examples. We show **Colgate-Palmolive Company's** ending 2004 and 2003 consolidated shareholders' equity and statements of retained earnings, comprehensive income, and changes in capital accounts in Real Report 17-3.

**EXAMPLE 17-8 Bardwell Corporation****Statement of Changes in Stockholders' Equity for 2007**

Explanation	Common Stock		Additional Paid-in Capital		Common Stock Option Warrants	Retained Earnings	Accumulated Other Comprehensive Income	Treasury Stock (Cost)
	Shares Issued	Par Value	Common Stock	Treasury Stock				
Balances, 1/1/2007	10,000	\$50,000	\$170,000	\$2,300	\$11,200	\$322,000	\$15,200	\$(7,500)
Issued for cash	1,100	5,500	22,000					
Reissued treasury stock				2,700				4,500
Issued for exercise of share options	300	1,500	5,400		(900)			
Compensation expense for share options					3,300			
Unrealized increase in value of available-for-sale securities							4,800	
Net income						97,000		
Cash dividends						(32,800)		
Balances, 12/31/2007	<u>11,400</u>	<u>\$57,000</u>	<u>\$197,400</u>	<u>\$5,000</u>	<u>\$13,600</u>	<u>\$386,200</u>	<u>\$20,000</u>	<u>\$(3,000)</u>

**EXAMPLE 17-9 Bardwell Corporation****Stockholders' Equity  
December 31, 2007**

Contributed capital	
Common stock, \$5 par (30,000 shares authorized, 11,400 shares issued, of which 100 shares are being held as treasury stock)	\$ 57,000
Additional paid-in capital on common stock	197,400
Additional paid-in capital from treasury stock	5,000
Common stock option warrants	13,600
Total contributed capital	\$273,000
Retained earnings (see Note A)	386,200
Accumulated other comprehensive income	
Unrealized increase in value of available-for-sale securities	20,000
Total contributed capital, retained earnings, and accumulated other comprehensive income	\$679,200
Less: Treasury stock (at cost)	(3,000)
Total Stockholders' Equity	<u>\$676,200</u>

*Notes to the Financial Statements*

Note A: Retained earnings are restricted regarding dividends in the amount of \$3,000, the cost of the treasury stock.

22. Bardwell Corporation reports its comprehensive income in a separate financial statement.



## LINK TO INTERNATIONAL DIFFERENCES

Under international accounting standards, a corporation's shareholders' interests (the term used for stockholders' equity) consists of two sections: (a) share capital, and (b) other equity. Many of the disclosures required under share capital are the same as those required under U.S. GAAP; for example, the number of shares authorized, issued, and outstanding, par value, reacquired shares, and rights, preferences, and restriction regarding dividends. The differences from those required by U.S. GAAP include disclosure of any capital not yet paid in, any restrictions on the repayment of capital, and the shares reserved for future issuance under sales contracts.

Share premium (additional paid-in capital) is disclosed in the *other equity* section, along with revaluation surplus, reserves, and retained earnings. Revaluation surplus and reserves are equity items that are different from those allowed under U.S. GAAP. Although International Accounting Standards are based on historical cost, some countries allow companies to revalue (upward and downward) their property, plant, and equipment (and intangibles) based on professionally qualified appraisals. When a company increases its asset values because of a revaluation, it also credits a revaluation surplus account. (A decrease because of revaluation would reduce this revaluation account, or if no balance exists in revaluation surplus, would be recognized in income.) In some respects, reserves under international accounting standards are similar to restrictions (appropriations) of retained earnings under U.S. GAAP. They may differ, however, in that reserves may be required by foreign statutes or tax laws, whereas there are no such requirements in the United States.

A company must disclose the "movement" in share capital accounts and in other equity for the period. In effect, these international disclosure requirements result in reporting the changes in shareholders' interests and are similar to the requirements of U.S. GAAP regarding the statement of changes in stockholders' equity, although the format of the disclosures may be different.

### Real Report 17-3 Shareholders' Equity and Related Changes



**COLGATE-PALMOLIVE COMPANY**

**Consolidated Balance Sheets (in part)**

(In millions)	December 31	
	2004	2003
Shareholders' Equity		
Preference stock	\$ 274.0	\$ 292.9
Common stock, \$1 par value (1,000,000,000 shares authorized, 732,853,180 shares issued)	732.9	732.9
Additional paid-in capital	1,093.8	1,126.2
Retained earnings	8,223.9	7,433.0
Accumulated other comprehensive income	(1,806.2)	(1,866.8)
	<u>\$ 8,518.4</u>	<u>\$ 7,718.2</u>
Unearned compensation	(307.6)	(331.2)
Treasury stock, at cost	(6,965.4)	(6,499.9)
Total shareholders' equity	<u>\$ 1,245.4</u>	<u>\$ 887.1</u>

*Continued*

## COIGATE-PALMOLIVE COMPANY

## Consolidated Statements of Retained Earnings, Comprehensive Income and Changes in Capital Accounts (in part)

(Dollars in millions except per share amounts)	Common Shares		Additional Paid-in Capital	Treasury Shares		Retained Earnings	Accumulated Other Comprehensive Income	Comprehensive Income
	Shares	Amount		Shares	Amount			
Balance, December 31, 2002	536,001,784	\$732.9	\$1,133.9	196,873,236	\$6,152.3	\$6,518.5	\$(1,865.6)	\$1,421.3
Net income						1,421.3		
Other comprehensive income:								
Cumulative translation adjustment							4.0	4.0
Other							(5.2)	(5.2)
<b>Total comprehensive income</b>								
Dividends declared:								
Series B Convertible Preference Stock, net of income taxes						(25.5)		
Preferred stock						(.2)		
Common stock						(481.1)		
Shares issued for stock options	4,928,861		(20.9)	(4,928,861)	(96.9)			
Treasury stock acquired	(10,146,986)			10,250,146	554.9			
Other	2,913,518		13.2	(3,038,518)	(110.4)			
<b>Balance, December 31, 2003</b>	<b>533,697,177</b>	<b>\$732.9</b>	<b>\$1,126.2</b>	<b>199,156,003</b>	<b>\$6,499.9</b>	<b>\$7,433.0</b>	<b>\$(1,866.8)</b>	<b>\$1,327.1</b>
Net income						1,327.1		
Other comprehensive income:								
Cumulative translation adjustment							75.4	75.4
Other							(14.8)	(14.8)
<b>Total comprehensive income</b>								
Dividends declared:								
Series B Convertible Preference Stock, net of income taxes							(25.9)	
Common stock							(510.3)	
Shares issued for stock options	2,142,895		2.1	(2,142,895)	(60.5)			
Treasury stock acquired	(12,383,273)			12,383,273	637.9			
Other	3,168,259		(34.5)	(3,168,259)	(111.9)			
<b>Balance, December 31, 2004</b>	<b>526,625,058</b>	<b>\$732.9</b>	<b>\$1,093.8</b>	<b>206,228,122</b>	<b>\$6,965.4</b>	<b>\$8,223.9</b>	<b>\$(1,806.2)</b>	<b>\$1,387.7</b>

## Questions:

1. How many shares of treasury stock were issued for stock options in 2004? At what average price were they issued?
2. How many shares of treasury stock were acquired in 2004? At what average price per share were they acquired?
3. What were the total dividends declared during 2004?
4. What was the average dividend per common share outstanding during 2004?



### SECURE YOUR KNOWLEDGE 17-3

- Prior period adjustments (restatements) are reported as adjustments of the beginning balance of retained earnings, net of taxes, on the statement of retained earnings.
- A restriction of retained earnings, to meet legal requirements or contractual restrictions, indicates that a portion of retained earnings is unavailable for dividends.
- A statement of retained earnings is often used to disclose the items affecting retained earnings—net income (loss), dividends, prior period (and retrospective) adjustments, and other reductions.
- Accumulated other comprehensive income may be reported on the face of the income statement, in a separate statement of comprehensive income, or in the statement of changes in stockholders' equity.
- A statement of changes in stockholders' equity is used to disclose the changes in different classes of common stock, additional paid-in capital, retained earnings, accumulated other comprehensive income, and treasury stock.

## 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. **Compute basic earnings per share.** The numerator for computing basic earnings per share is net income minus preferred dividends. The denominator is the weighted average number of common shares outstanding.
2. **Understand how to compute the weighted average common shares for EPS.** The weighted average is computed by summing the "equivalent whole units" of shares for all the "layers" of stock. The equivalent whole units are computed by multiplying the number of shares for that layer times the fraction of the year the layer is outstanding.
3. **Identify the potential common shares included in diluted EPS.** The most common "potential common shares" that may be included in computing diluted EPS are share options and warrants, as well as convertible preferred stock and convertible bonds. These securities are included in diluted EPS only if they decrease EPS.
4. **Apply the treasury stock method for including share options and warrants in diluted EPS.** To apply the treasury stock method, compute the assumed shares issued and the proceeds received from the assumed exercise. Then compute the assumed shares reacquired by dividing the proceeds by the average market price. Finally, deduct the assumed shares reacquired from the assumed shares issued to determine the incremental shares.
5. **Calculate the impact of a convertible security on diluted EPS.** The impact is computed by dividing the increase in the EPS numerator by the increase in the EPS denominator, assuming the convertible security is converted into common stock. For a convertible bond, the numerator increases by the savings in interest expense (net of taxes). For a convertible bond, the numerator increases by the savings in preferred dividends.
6. **Compute diluted EPS.** Begin with the calculation of basic EPS. Then, increase the denominator for the increased shares from the assumed exercise of share options and warrants. Then include the impact on the numerator and denominator of the assumed conversion of each dilutive convertible security in sequential order until the impact of the next security is antidilutive.
7. **Record the declaration and payment of cash dividends.** A corporation records the declaration by debiting retained earnings and crediting dividends payable. It records the payment by debiting dividends payable and crediting cash.

8. **Account for a property dividend.** A corporation accounts for a property dividend at the fair value of the asset transferred, and records a gain (or loss) on the date of declaration.
9. **Explain the difference in accounting for small and large stock dividends.** A corporation accounts for a small stock dividend by transferring from retained earnings to contributed capital an amount equal to the fair value of the additional shares issued. It accounts for a large stock dividend by transferring an amount equal to the par value.
10. **Understand how to report accumulated other comprehensive income.** A corporation reports its accumulated other comprehensive income in the stockholders' equity section of its balance sheet. It may report the amount of accumulated other comprehensive income for each item or it may report the total. If it reports the total, it must disclose the amounts for each of the items in the notes to its financial statements.
11. **Prepare a statement of changes in stockholders' equity.** Start with the beginning balance of each stockholders' equity account. Then add (or deduct) the change in each account resulting from the related transactions during the accounting period. Report the ending amounts on the stockholders' equity section of the balance sheet.

## ANSWERS TO REAL REPORT QUESTIONS

### Real Report 17-1 Answers

1. Discontinued operations caused both basic and diluted earnings per share for net income to be \$0.01 per share lower than the basic and diluted earnings per share for income from continuing operations. While some may consider a \$0.01 per share effect significant, the fact that this was caused by discontinued operations should be considered. Because these operations will not persist into the future, analysts may disregard this component of earnings per share and instead focus on the continuing operations of the company as they assess the timing, amount, and uncertainty of the company's future cash flows.
2. International Business Machines (IBM) has a complex capital structure that includes securities that are potentially convertible into common shares. The diluted earnings per share computation uses a weighted average number of common shares that considers all potential common shares that would reduce earnings per share.

### Real Report 17-2 Answers

1. The declaration of common stock dividends reduces the assets of the company (e.g., cash) and is considered a return of capital that reduces retained earnings.
2. The common stock dividend as a percentage of net income (dividends declared  $\div$  net income) is 57.3% and 47.8% for 2004 and 2003, respectively. Generally, companies that pay a higher percentage of their income

to stockholders in the form of dividends are considered "mature" companies. Because Merck is paying out such a large percentage of its income in the form of dividends (and conversely retaining a smaller portion of its earnings for reinvestment in the business), Merck may be reaching a mature stage in which it does not expect to experience rapid future growth opportunities.

3. The spin-off of MedCo Health is an unusual transaction that is similar to a dividend. As Merck disposed of the net assets of MedCo Health, existing stockholders received a pro-rata dividend of MedCo Health shares. Similar to any other dividend, this is treated as a reduction of retained earnings.

### Real Report 17-3 Answers

1. During 2004, Colgate-Palmolive issued 2,142,895 shares of treasury stock for stock options at an average price per share of \$29.21 [increase in equity of \$62.6 million ( $\$60.5 \text{ million} + \$2.1 \text{ million}$ )  $\div$  2,142,895 shares].
2. During 2004, Colgate-Palmolive acquired 12,383,273 shares of treasury stock at an average price of \$51.51 per share ( $\$637.9 \text{ million} \div 12,383,273 \text{ shares}$ ).
3. Total dividends declared were \$536.2 million, which consisted of \$25.9 million of dividends declared on preference stock and \$510.3 million of dividends declared on common stock.
4. The average dividend per common share for 2004 was \$0.70 per share ( $\$510.3 \text{ million} \div 732,853,180 \text{ shares}$ ).

## QUESTIONS

**Q17-1** What is a *simple capital structure*?

**Q17-2** How is "basic earnings per share" computed for a corporation with a simple capital structure?

**Q17-3** What is the "weighted average" number of shares for computing earnings per share and how is it calculated?

**Q17-4** On what date are stock dividends and splits considered to be issued for computing earnings per share?



- Q17-5** Identify several securities that might be found in the complex capital structure of a corporation.
- Q17-6** What two earnings per share figures generally are reported by a corporation with a complex capital structure? Besides common shares outstanding, what additional securities are included in the second earnings per share calculation?
- Q17-7** What is the *treasury stock method*? How is the increase in the diluted earnings per share denominator determined under the treasury stock method?
- Q17-8** Discuss how to develop a ranking for determining in which order to include convertible securities in a corporation's diluted earnings per share calculations.
- Q17-9** What additional disclosures does a corporation make concerning the basic and diluted earnings per share it reports on its income statement?
- Q17-10** What are the four important dates in regard to a cash dividend? What journal entry does the corporation make on each date?
- Q17-11** What is fully participating preferred stock? Partially participating preferred stock?
- Q17-12** Discuss how a corporation records the declaration of a property dividend.
- Q17-13** Distinguish between an ordinary and special stock dividend.
- Q17-14** Distinguish between a small and large stock dividend. What amounts does a corporation use to record the declaration of each dividend?
- Q17-15** How does the accounting for a liquidating dividend differ from that for a normal cash dividend?
- Q17-16** How does a corporation record and report a correction of a material error made in a previous year in its current year's financial statements?
- Q17-17** For what reasons would a corporation restrict its retained earnings? How does it report a restriction?
- Q17-18** What is the suggested format for the statement of retained earnings? What are the two most common elements in this statement?
- Q17-19** What items might a corporation include in the accumulated other comprehensive income section of its stockholders' equity?
- Q17-20** What changes does a corporation include in its statement of changes in stockholders' equity?

## MULTIPLE CHOICE (AICPA Adapted)

Select the best answer for each of the following.

- M17-1** For purposes of computing the weighted average number of shares outstanding during the year, a midyear event that must be treated as occurring at the beginning of the year is the
- Issuance of stock warrants
  - Purchase of treasury stock
  - Sale of additional common stock
  - Declaration and payment of stock dividend
- M17-2** In determining basic earnings per share, dividends on nonconvertible cumulative preferred stock should be
- Deducted from net income only if declared
  - Deducted from net income whether declared or not
  - Added back to net income whether declared or not
  - Disregarded
- M17-3** Redford Corporation's capital structure at December 31, 2006 was as follows:

	Shares Issued and Outstanding
Common stock	100,000
Nonconvertible preferred stock	20,000

On July 2, 2007, Redford issued a 10% stock dividend on its common stock, and paid a cash dividend of \$2.00 per share

on its preferred stock. Net income for the year ended December 31, 2007 was \$780,000. What should be Redford's 2007 basic earnings per share?

- \$7.80
- \$7.09
- \$7.05
- \$6.73

**M17-4** Faucet Company has 2,500,000 shares of common stock outstanding on December 31, 2006. An additional 500,000 shares of common stock were issued on April 2, 2007, and 250,000 more on July 2, 2007. On October 1, 2007, Faucet issued 5,000, \$1,000 face value, 7% convertible bonds. Each bond is dilutive and convertible into 40 shares of common stock. No bonds were converted into common stock in 2007. What is the number of shares to be used in computing basic earnings per share and diluted earnings per share, respectively, for the year ended December 31, 2007?

- 2,875,000 and 2,925,000
- 2,875,000 and 3,075,000
- 3,000,000 and 3,050,000
- 3,000,000 and 3,200,000

**M17-5** At December 31, 2007, Gravin Corporation had 90,000 shares of common stock and 20,000 shares of convertible preferred stock outstanding, in addition to 9% convertible bonds payable in the face amount of \$2,000,000. During 2007, Gravin paid dividends of \$2.50 per share on the preferred stock. The preferred stock is convertible into



20,000 shares of common stock. The 9% convertible bonds are convertible into 30,000 shares of common stock. Net income for 2007 was \$970,000. Assume an income tax rate of 30%. How much is the diluted earnings per share for the year ended December 31, 2007?

- a. \$7.83
- b. \$8.82
- c. \$9.35
- d. \$10.22

**M17-6** A prior period adjustment should be reflected, net of applicable income taxes, in the financial statements of a business entity in the

- a. Retained earnings statement after net income but before dividends
- b. Retained earnings statement as an adjustment of the opening balance
- c. Income statement after income from continuing operations
- d. Income statement as part of income from continuing operations

**M17-7** Cash dividends on the \$10 par value common stock of Ray Company were as follows:

1st quarter of 2007	\$ 800,000
2nd quarter of 2007	900,000
3rd quarter of 2007	1,000,000
4th quarter of 2007	1,100,000

The 4th-quarter cash dividend was declared on December 21, 2007 to stockholders of record on December 31, 2007. Payment of the 4th-quarter cash dividend was made on January 18, 2008.

In addition, Ray declared a 5% stock dividend on its \$10 par value common stock on December 3, 2007 when there were 300,000 shares issued and outstanding and the market value of the common stock was \$20 per share. The shares were issued on December 24, 2007.

What was the effect on the stockholders' equity accounts of Ray Company as a result of the preceding transactions?

Common Stock	Additional Paid-in Capital	Retained Earnings
a. \$ 0	\$ 0	\$3,800,000 dr
b. \$150,000 cr	\$ 0	\$3,950,000 dr
c. \$150,000 cr	\$150,000 cr	\$4,100,000 dr
d. \$300,000 cr	\$300,000 dr	\$3,800,000 dr

**M17-8** The following information was abstracted from the accounts of the Oar Corporation at December 31, 2007:

Total income since incorporation	\$840,000
Total cash dividends paid	260,000
Proceeds from sale of donated stock	90,000
Total value of stock dividends distributed	60,000
Excess of proceeds over cost of treasury stock sold	140,000

What should be the current balance of retained earnings?

- a. \$520,000
- b. \$580,000
- c. \$610,000
- d. \$670,000

**M17-9** Effective April 27, 2007 the stockholders of Bennett Corporation approved a two-for-one split of the company's common stock, and an increase in authorized common shares from 100,000 shares (par value \$20 per share) to 200,000 shares (par value \$10 per share). Bennett's stockholders' equity accounts immediately before issuance of the stock split shares were as follows:

Common stock, par value \$20; 100,000 shares authorized; 50,000 shares outstanding	\$1,000,000
Additional paid-in capital (premium of \$3 per share on issuance of common stock)	150,000
Retained earnings	1,350,000

What should be the balances in Bennett's additional paid-in capital and retained earnings accounts immediately after the stock split is effected?

	Additional Paid-in Capital	Retained Earnings
a.	\$ 0	\$ 500,000
b.	\$ 150,000	\$ 350,000
c.	\$ 150,000	\$1,350,000
d.	\$1,150,000	\$ 350,000

**M17-10** Newton Corporation was organized on January 1, 2005. On that date it issued 200,000 shares of \$10 par value common stock at \$15 per share (400,000 shares were authorized). During the period January 1, 2005 through December 31, 2007, Newton reported net income of \$750,000 and paid cash dividends of \$380,000. On January 5, 2007, Newton purchased 12,000 shares of its common stock at \$12 per share. On December 28, 2007, 8,000 treasury shares were sold at \$8 per share. Newton used the cost method of accounting for treasury shares. What is the total stockholders' equity of Newton as of December 31, 2007?

- a. \$3,290,000
- b. \$3,306,000
- c. \$3,338,000
- d. \$3,370,000

## EXERCISES

**E17-1 Weighted Average Shares** At the beginning of the current year, Heath Company had 20,000 shares of \$10 par common stock outstanding. During the year, it engaged in the following transactions related to its common stock, so that at year-end it had 63,800 shares outstanding:

Apr.	2	Issued 5,000 shares of stock
June	4	Issued 4,000 shares of stock
July	1	Issued a 10% stock dividend
Sept.	28	Issued a two-for-one stock split, reducing the par value to \$5 per share
Oct.	3	Reacquired 1,000 shares as treasury stock
Nov.	27	Reissued the 1,000 shares of treasury stock

### Required

Determine the weighted average number of shares outstanding for computing the current earnings per share.

**E17-2 Comparative Earnings Per Share** Ryan Company reports net income of \$5,125 for the year ended December 31, 2007, its first year of operations. On January 3, 2007, the company issued 9,000 shares of common stock. On August 1, 2007 it issued an additional 3,000 shares of stock, resulting in 12,000 shares outstanding at year-end.

During 2008 Ryan Company earned net income of \$16,400. It issued 2,000 additional shares of stock on March 3, 2008 and declared and issued a two-for-one stock split on November 3, 2008, resulting in 28,000 shares outstanding at year-end.

During 2009 Ryan Company earned net income of \$23,520. The only common stock transaction during 2009 was a 20% stock dividend issued on July 2, 2009.

### Required

1. Compute the basic earnings per share that would be disclosed in the 2007 annual report.
2. Compute the 2007 and 2008 comparative basic earnings per share that would be disclosed in the 2008 annual report.
3. Compute the 2007, 2008, and 2009 comparative basic earnings per share that would be disclosed in the 2009 annual report.

**E17-3 Basic Earnings Per Share** Sardel Company reported net income of \$29,975 for 2007. During all of 2007 the company had 1,000 shares of 10%, \$100 par, nonconvertible preferred stock outstanding, on which the year's dividends had been paid. At the beginning of 2007 the company had 7,000 shares of common stock outstanding. On April 2, 2007 the company issued another 2,000 shares of common stock, so that 9,000 common shares were outstanding at the end of 2007. Common dividends of \$17,000 had been paid during 2007. At the end of 2007 the market price per share of common stock was \$17.50.

### Required

1. Compute the basic earnings per share of Sardel Company for 2007.
2. Compute the price/earnings ratio for 2007.

**E17-4 Basic Earnings Per Share** Burke Company shows the following condensed income statement information for the year ended December 31, 2007:

Income before extraordinary items	\$29,936
Less: Extraordinary loss (net of income tax credit)	<u>(2,176)</u>
Net income	<u>\$27,760</u>

The company declared dividends of \$6,000 on preferred stock and \$17,280 on common stock. At the beginning of 2007, 10,000 shares of common stock were outstanding. On May 4, 2007 the company issued 2,000 additional common shares, and on October 19, 2007 it issued a 20% stock dividend on its common stock. The preferred stock is not convertible.

### Required

1. Compute the 2007 basic earnings per share.
2. Show the 2007 income statement disclosure of basic earnings per share.
3. Draft a related note to accompany the 2007 financial statements.

**E17-5 Impact on EPS and Rankings** Matthews Company had five convertible securities outstanding during all of 2007. It paid the appropriate interest (and amortized any related premium or discount using the straight-line method) and dividends on each security during 2007. Each convertible security is described in the following table. The corporate income tax rate is 30%.

Security	Description
9.5% preferred stock	\$200,000 par value. Issued at 112. Each \$100 par preferred stock is convertible into 4.2 shares of common stock.
11.0% bonds	\$220,000 face value. Issued at par. Each \$1,000 bond is convertible into 44 shares of common stock.
8.0% preferred stock	\$150,000 par value. Issued at par. Each \$100 par preferred stock is convertible into 3.8 shares of common stock.
10.0% bonds	\$100,000 face value. Issued at 94. Discount being amortized over 20-year life. Each \$1,000 bond is convertible into 55 shares of common stock.
9.0% bonds	\$200,000 face value. Issued at 108. Premium being amortized over 25-year life. Each \$1,000 bond is convertible into 48 shares of common stock.

#### Required

1. Prepare a schedule that lists the impact of the assumed conversion of each convertible security on diluted earnings per share.
2. Prepare a ranking of the order in which the securities would be included in the diluted earnings per share computations.

**E17-6 Share Options, EPS** Butler Company has 30,000 shares of common stock outstanding during all of 2007. This common stock has been selling at an average market price of \$45 per share. The company also has outstanding for the entire year compensatory share options to purchase 4,000 shares of common stock at \$32 per share. The unrecognized compensation cost (net of tax) relating to these share options is \$3 per share. During 2007 Butler Company earned income of \$36,000 after income taxes of 30%.

#### Required

Compute the 2007 diluted earnings per share.

**E17-7 Convertible Preferred Stock and EPS** Jamieson Company earned net income of \$43,800 during 2007. At the beginning of 2007 it had 10,000 shares of common stock outstanding; an additional 4,000 shares were issued on July 2. During 2007, 600 shares of 8%, \$100 par, convertible preferred stock were outstanding the entire year. Dividends on this preferred stock were paid in 2007. Each share is convertible into 5 shares of common stock. The corporate income tax rate is 30%.

#### Required

Compute the 2007 diluted earnings per share.

**E17-8 Convertible Bonds and EPS** Clark Company's capital structure consists of common stock and convertible bonds. At the beginning of 2007 the company had 15,000 shares of common stock outstanding; an additional 4,500 shares were issued on May 4. The 7% convertible bonds have a face value of \$80,000 and were issued in 2004 at par. Each \$1,000 bond is convertible into 25 shares of common stock; to date, none of the bonds has been converted. During 2007, the company earned net income of \$79,200 and was subject to an income tax rate of 30%.

#### Required

Compute the 2007 diluted earnings per share.

**E17-9 Convertible Securities and Earnings Per Share** Walker Company has 15,000 shares of common stock outstanding during all of 2007. It also has two convertible securities outstanding at the end of 2007. These are:

1. Convertible preferred stock: 1,000 shares of 9%, \$100 par, preferred stock were issued in 2006 for \$140 per share. Each share of preferred stock is convertible into 3.5 shares of common stock. The current dividends have been paid. To date, no preferred stock has been converted.
2. Convertible bonds: Bonds with a face value of \$100,000 and an interest rate of 10% were issued at par on July 6, 2007. Each \$1,000 bond is convertible into 35 shares of common stock. To date, no bonds have been converted.

The company earned net income of \$54,000 during 2007. Its income tax rate is 30%.

#### Required

Compute the 2007 diluted earnings per share. What earnings per share amount(s) would Walker report on its 2007 income statement?

**E17-10 Convertible Securities and Earnings Per Share** Caldwell Company has 20,000 shares of common stock outstanding during all of 2007. It also has two convertible securities outstanding at the end of 2007. These are:

1. Convertible preferred stock: 2,000 shares of 9.5%, \$50 par, preferred stock were issued on January 2, 2007 for \$60 per share. Each share of preferred stock is convertible into 3 shares of common stock. Current dividends have been declared. To date, no preferred stock has been converted.

2. Convertible bonds: Bonds with a face value of \$200,000 and an interest rate of 5.7% were issued at par in 2006. Each \$1,000 bond is convertible into 22 shares of common stock. To date, no bonds have been converted.

The company earned net income of \$61,500 during 2007. Its income tax rate is 30%.

#### Required

Compute the 2007 diluted earnings per share. What earnings per share amount(s) would Caldwell report on its 2007 income statement?

**E17-11 Dividends** Uphoff Company has \$80,000 available to pay dividends. It has 2,000 shares of 10%, \$100 par, preferred stock and 30,000 shares of \$10 par common stock outstanding. The preferred stock is selling for \$125 per share and the common stock is selling for \$20 per share.

#### Required

- Determine the amount of dividends to be paid to each class of stockholder for each of the following independent assumptions:
  - Preferred stock is nonparticipating and noncumulative.
  - Preferred stock is nonparticipating and cumulative. Preferred dividends are two years in arrears at the beginning of the year.
  - Preferred stock is fully participating and cumulative. Preferred dividends are one year in arrears at the beginning of the year.
  - Preferred stock is participating up to a maximum of 15% of its par value and is noncumulative.
- For 1(a), compute the dividend yield on the preferred stock and the common stock.

**E17-12 Various Dividends** The Goodson Company listed the following account balances on December 31, 2006:

Investment in Xurk Company bonds	\$ 25,000	Common stock, \$10 par	\$400,000
Dividends payable: preferred	4,000	Additional paid-in capital on preferred stock	20,000
Dividends payable: common	40,000	Additional paid-in capital on common stock	210,000
Preferred stock, 8%, \$100 par	100,000	Retained earnings	270,000

During 2007, the following transactions occurred:

- Feb. 2 Paid the semiannual dividends declared on December 15, 2006.
- Mar. 5 Declared a property dividend, payable to common stockholders on April 5 in Xurk Company bonds being held to maturity. The bonds (which have a book value of \$25,000) have a current market value of \$31,000.
- Apr. 5 Paid the property dividend.
- July 6 Declared a \$4 per share semiannual cash dividend on preferred stock and a \$1.10 per share semiannual dividend on common stock, to be paid on August 17.
- Aug. 17 Paid the cash dividends.
- Oct. 15 Declared a 2% stock dividend on common stock to be issued on December 3. The current market price is \$22 per share.
- Dec. 3 Issued the stock dividend.
- Dec. 28 Declared a \$4 and \$1.20 per share semiannual cash dividend on preferred and common stock, respectively, to be paid on February 15, 2008.

#### Required

Prepare journal entries to record the preceding transactions.

**E17-13 Various Dividends** Mills Company lists the following condensed balance sheet as of the beginning of 2007:

Current assets	\$ 60,000	Current liabilities	\$ 30,000
Investment in M bonds	9,000	Common stock, no par	150,000
Fixed assets (net)	<u>200,000</u>	Retained earnings	<u>89,000</u>
	<u>\$269,000</u>		<u>\$269,000</u>

Mills is considering the impact of various types of dividends on this balance sheet. Each dividend would be declared and paid in 2007. These include:

- Cash dividend of \$1.00 per share on the 10,000 shares outstanding.
- Stock dividend of 5% on the 10,000 shares outstanding when the market price is \$17 per share.
- Property dividend consisting of the \$9,000 (book value) investment in M bonds being held to maturity. This investment has a current market value of \$13,000. (For Requirement 2, assume any gain or loss is to be reflected in retained earnings. Disregard income taxes.)
- Scrip dividend of \$0.80 per share on the 10,000 shares outstanding. The scrip earns interest at a 12% annual rate and is to be declared on January 30 and paid on December 30, 2007. (For Requirement 2, assume any interest expense is to be reflected in retained earnings. Disregard income taxes.)
- Cash dividend consisting of a \$0.70 per share normal dividend and a \$0.30 per share liquidating dividend.

**Required**

For each preceding *independent* dividend:

1. Prepare the appropriate journal entries for the declaration and payment of the dividend.
2. Prepare a condensed balance sheet after the dividend has been *paid*.

**E17-14 Stock Dividend** The stockholders' equity of the Sadler Company is as shown:

Common stock, \$10 par	\$250,000
Additional paid-in capital on common stock	150,000
Retained earnings	<u>200,000</u>
	<u>\$600,000</u>

The company is considering the declaration and issuance of a stock dividend at a time when the market price is \$30 per share.

**Required**

1. Assuming the board of directors recommends a 6% stock dividend, prepare:
  - a. the journal entry at the date of declaration
  - b. the journal entry at the date of issuance
  - c. the stockholders' equity after the issuance
2. Assuming, instead, that a 40% stock dividend is recommended, repeat (a), (b), and (c) of Requirement 1.

**E17-15 Stock Dividend Comparison** Although Weaver Company has enough retained earnings legally to declare a dividend, its working capital is low. The board of directors is considering a stock dividend instead of a cash dividend. The common stock is currently selling at \$34 per share. The following is Weaver's current stockholders' equity:

Common stock, \$10 par	\$ 400,000
Premium on common stock	<u>800,000</u>
Total contributed capital	\$1,200,000
Retained earnings	<u>1,300,000</u>
Total stockholders' equity	<u>\$2,500,000</u>

**Required**

1. Assuming a 15% stock dividend is declared and issued, prepare the stockholders' equity section immediately after the date of issuance.
2. Assuming, instead, that a 30% stock dividend is declared and issued, prepare the stockholders' equity section immediately after the date of issuance.
3. What unusual result do you notice when you compare your answers from (1) with (2)? From a theoretical standpoint, how might this have been avoided?

**E17-16 Prior Period Adjustments** Miles Company began 2007 with a retained earnings balance of \$142,400. During an examination of its accounting records on December 31, 2007, the company found it had made the following material errors, for both financial reporting and income tax reporting, during 2006.

1. Depreciation expense of \$15,000 inadvertently had been recorded twice for the same machine.
2. No accrual had been made at year-end for interest; therefore, interest expense had been understated by \$4,000.

The Miles Company's net income during 2007 was \$60,000. The company has been subject to a 30% income tax rate for the past several years. It declared and paid dividends of \$13,000 during 2007.

**Required**

1. Prepare whatever journal entries in 2007 are necessary to correct the Miles Company books for its previous errors. Make your corrections directly to the retained earnings account.
2. Prepare the statement of retained earnings for 2007.

**E17-17 Restrictions** Perry Company has a retained earnings balance of \$400,000 at the end of 2007. During 2007 it had issued \$100,000 of five-year, 12%, long-term bonds. The bond provisions require that each year over the five-year period an additional \$20,000 of retained earnings be unavailable for dividends. This restriction is in addition to any other retained earnings restrictions that the company might make. At the end of 2007, Perry Company held treasury stock costing \$15,000.

**Required**

Show how Perry Company would report its retained earnings in its 2007 financial statements. Include a note to the financial statements fully describing the restrictions.

**E17-18 Retained Earnings Statement** Hernandez Company began 2007 with a \$120,000 balance in retained earnings. During the year, the following events occurred:

1. The company earned net income of \$80,000.
2. A material error in net income from a previous period was corrected. This error correction increased retained earnings by \$9,800 after related income taxes of \$4,200.
3. Cash dividends totaling \$13,000 and stock dividends totaling \$17,000 were declared.
4. One thousand shares of callable preferred stock that originally had been issued at \$110 per share were recalled and retired at the beginning of 2007 for the call price of \$120 per share.
5. Treasury stock (common) was acquired at a cost of \$20,000. State law requires a restriction of retained earnings in an equal amount. The company reports its retained earnings restrictions in a note to the financial statements.

**Required**

1. Prepare a statement of retained earnings for the year ended December 31, 2007.
2. Prepare the note to disclose the restriction of retained earnings.

**E17-19 Retained Earnings Statement** On January 1, 2007 Franklin Company had a retained earnings balance of \$206,000. During 2007 the following events occurred:

1. Treasury stock (common) was acquired at a cost of \$14,000. State law requires a restriction of retained earnings in an equal amount. The company reports its retained earnings restrictions in a note to the financial statements.
2. Cash dividends totaling \$9,000 and stock dividends totaling \$6,000 were declared and distributed.
3. Net income was \$58,000.
4. Two thousand shares of callable preferred stock were recalled and retired at a price of \$150 per share. This stock had originally been issued at \$130 per share.
5. A material error in net income for a previous period was corrected. This error correction decreased retained earnings by \$12,600 after a related income tax credit of \$5,400.

**Required**

1. Prepare a statement of retained earnings for the year ended December 31, 2007.
2. Prepare a note to disclose the restriction of retained earnings.

**E17-20 Stockholders' Equity** Wilk Manufacturing Corporation completed the following transactions during its first year of operation, 2007:

1. The state authorized the issuance of 30,000 shares of \$5 par common stock; 15,000 shares were issued at \$22 per share.
2. The state authorized the issuance of 6,000 shares of \$50 par preferred stock. All 6,000 shares were issued at \$70 per share.
3. Wilk reacquired 1,000 shares of its outstanding common stock at \$18 per share. The cost method is used to account for treasury stock.
4. Wilk invested \$50,000 of excess cash, not needed to finance operations, in long-term available-for-sale equity securities. At year-end, the market value of these securities was \$47,500.
5. Wilk sold 500 shares of treasury stock for \$23 per share.
6. Net income for the first year of operations was \$16,000. No dividends were declared.

**Required**

Prepare the stockholders' equity section (and any related notes to the financial statements) of the Wilk Manufacturing Corporation balance sheet as of December 31, 2007.

**E17-21 Changes in Stockholders' Equity** The stockholders' equity section of Winslow Design Company's December 31, 2006 balance sheet appeared as follows:

Contributed capital	
Preferred stock, \$100 par (10,000 shares authorized, 1,250 shares issued)	\$125,000
Additional paid-in capital on preferred stock	55,000
Common stock, \$10 par (60,000 shares authorized, 15,000 shares issued)	150,000
Additional paid-in capital on common stock	<u>105,000</u>
Total contributed capital	\$435,000
Retained earnings	
Contributed capital and retained earnings	<u>\$ 513,000</u>
Less: Treasury stock (300 shares of common at \$14 per share)	<u>(4,200)</u>
Total Stockholders' Equity	<u><u>\$508,800</u></u>



During 2007 the company entered into the following transactions affecting stockholders' equity:

1. Issued 250 shares of preferred stock at \$164 per share.
2. Issued 3,000 shares of common stock at \$17 per share.
3. Reacquired 200 of its own common shares as treasury stock for \$15 per share.
4. Reissued 250 shares of treasury stock at \$17 per share (FIFO basis).
5. Net income for 2007 was \$46,500. Dividends of \$25,000 were distributed.

#### Required

1. Prepare a statement of changes in stockholders' equity for the year ended December 31, 2007.
2. Compute the return on stockholders' equity for 2007.

## PROBLEMS

**P17-1** *Income Statement and Basic EPS* Manty Company listed the following selected pretax items in its December 31, 2007 adjusted trial balance:

	Debit	Credit
Nonconvertible, 8% preferred stock, \$100 par		\$ 60,000
Common stock, \$5 par		90,000
Sales		206,000
Cost of goods sold	\$131,000	
Gain on disposal of discontinued Division B		8,000
Extraordinary gain from bond retirement		15,000
Operating expenses	19,250	
Loss from operations of discontinued Division B	20,000	

#### Additional information:

The preferred shares had been outstanding the entire year; annual dividends were declared and paid in 2007. During 2007, 2,000 common shares were issued on July 2, and 6,000 common shares were issued on November 3. Common dividends of \$12,500 were declared and paid in 2007. The company is subject to a 30% income tax rate.

#### Required

Prepare the Manty Company's 2007 income statement (multiple-step) and the related note.

**P17-2** *Comparative Income Statements and Basic EPS* Agocha Company reported the following selected items in the stockholders' equity section of its balance sheet on December 31, 2007 and 2008:

	December 31,	
	2007	2008
7% preferred stock (nonconvertible), \$100 par	\$50,000	\$50,000
Common stock, \$10 par	70,000	84,000

In addition, it listed the following selected pretax items in its December 31, 2007 and 2008 adjusted trial balances:

	December 31, 2007		December 31, 2008	
	Debit	Credit	Debit	Credit
Sales		\$124,300		\$140,000
Extraordinary gain		6,000		—
Cost of goods sold	\$75,000		\$80,000	
Operating expenses	18,000		20,000	
Extraordinary loss	—		9,000	

The preferred shares were outstanding during all of 2007 and 2008; annual dividends were declared and paid in each year. During 2007, 2,000 common shares were sold for cash on October 3. During 2008, a 20% stock dividend was declared and issued in early May. At the end of 2007 and 2008, the common stock was selling for \$25.75 and \$32.20, respectively. The company is subject to a 30% income tax rate.

**Required**

1. Prepare the comparative 2007 and 2008 income statements (multiple-step), and the related note that would appear in the Agocha Company's 2008 annual report.
2. Compute the price/earnings ratio for 2008. How does this compare to 2007? Why is it different?

**P17-3 Earnings Per Share** Wheeler Company began 2007 with 10,000 shares of \$10 par common stock and 2,000 shares of 9.4%, \$100 par, convertible preferred stock outstanding. On April 2 and June 1, respectively, the company issued 2,000 and 6,000 additional shares of common stock. On November 16 the company declared a two-for-one stock split. Compensatory share options that currently allow the purchase of 2,000 shares of common stock at \$16 per share were outstanding during 2007. To date, none of these options have been exercised. The unrecognized compensation cost (net of tax) related to these options is \$2 per share. The preferred stock was issued in 2006. Each share of preferred stock is currently convertible into 4 shares of common stock. To date, no preferred stock has been converted. Current dividends have been paid on both preferred and common stock. Net income for 2007 totaled \$109,800. The company is subject to a 30% income tax rate. The common stock sold at an average market price of \$24 per share during 2007.

**Required**

1. Prepare supporting calculations and compute:
  - a. Basic earnings per share
  - b. Diluted earnings per share
2. Show how Wheeler Company would report the earnings per share on its 2007 income statement. Include an accompanying note to the financial statements.

**P17-4 Impact on EPS, Rankings, and Computations** Madsen Company had five convertible securities outstanding during all of 2007. It paid the appropriate interest (and amortized any related premium or discount using the straight-line method) and dividends on each security during 2007. Each of the convertible securities is described in the following table:

Security	Description
10.2% bonds	\$200,000 face value. Issued at par. Each \$1,000 bond is convertible into 28 shares of common stock.
12.0% bonds	\$160,000 face value. Issued at 110. Premium being amortized over 20-year life. Each \$1,000 bond is convertible into 47 shares of common stock.
9.0% bonds	\$200,000 face value. Issued at 95. Discount being amortized over 10-year life. Each \$1,000 bond is convertible into 44 shares of common stock.
8.3% preferred stock	\$120,000 par value. Issued at 108. Each \$100 par preferred stock is convertible into 3.9 shares of common stock.
7.5% preferred stock	\$180,000 par value. Issued at par. Each \$100 par preferred stock is convertible into 6 shares of common stock.

**Additional data:**

Net income for 2007 totaled \$119,460. The weighted average number of common shares outstanding during 2007 was 40,000 shares. No share options or warrants are outstanding. The effective corporate income tax rate is 30%.

**Required**

1. Prepare a schedule that lists the impact of the assumed conversion of each convertible security on diluted earnings per share.
2. Prepare a ranking of the order in which each of the convertible securities should be included in diluted earnings per share.
3. Compute basic earnings per share.
4. Compute diluted earnings per share.
5. Indicate the amount(s) of the earnings per share that Madsen Company would report on its 2007 income statement.

**P17-5 Comprehensive: EPS** Newton Company is preparing its annual earnings per share amounts to be disclosed on its 2007 income statement. It has collected the following information at the end of 2007:

1. Net income: \$120,400. Included in the net income is income from continuing operations of \$130,400 and an extraordinary loss (net of income taxes) of \$10,000. Corporate income tax rate, 30%.
2. Common stock outstanding on January 1, 2007: 20,000 shares.
3. Common stock issuances during 2007: July 6, 4,000 shares; August 24, 3,000 shares.
4. Stock dividend: On October 19, 2007 the company declared a 10% stock dividend that resulted in 2,700 additional outstanding shares of common stock.
5. Common stock prices: 2007 average market price, \$30 per share; 2007 ending market price, \$27 per share.

- 7% preferred stock outstanding on January 1, 2007: 1,000 shares. Terms: \$100 par, nonconvertible. Current dividends have been paid. No preferred stock issued during 2007.
- 8% convertible preferred stock outstanding on January 1, 2007: 800 shares. The stock was issued in 2006 at \$130 per share. Each \$100 par preferred stock is currently convertible into 1.7 shares of common stock. Current dividends have been paid. To date, no preferred stock has been converted.
- Bonds payable outstanding on January 1, 2007: \$100,000 face value. These bonds were issued several years ago at 97 and pay annual interest of 9.6%. The discount is being amortized in the amount of \$300 per year. Each \$1,000 bond is currently convertible into 22 shares of common stock. To date, no bonds have been converted.
- Compensatory share options outstanding: Key executives may currently acquire 3,000 shares of common stock at \$20 per share. The options were granted in 2006. To date, none have been exercised. The unrecognized compensation cost (net of tax) related to the options is \$4 per share.

#### Required

- Compute the basic earnings per share. Show supporting calculations.
- Compute the diluted earnings per share. Show supporting calculations.
- Show how Newton Company would report these earnings per share figures on its 2007 income statement. Include an explanatory note to the financial statements.

**P17-6 Comprehensive: EPS** The Frost Company has accumulated the following information relevant to its 2007 earnings per share.

- Net income for 2007, \$150,500.
- Bonds payable: On January 1, 2007 the company had issued 10%, \$200,000 bonds at 110. The premium is being amortized in the amount of \$1,000 per year. Each \$1,000 bond is currently convertible into 22 shares of common stock. To date, no bonds have been converted.
- Bonds payable: On December 31, 2005, the company had issued \$540,000 of 5.8% bonds at par. Each \$1,000 bond is currently convertible into 11.6 shares of common stock. To date, no bonds have been converted.
- Preferred stock: On July 3, 2006 the company had issued 3,800 shares of 7.5%, \$100 par, preferred stock at \$108 per share. Each share of preferred stock is currently convertible into 2.45 shares of common stock. To date, no preferred stock has been converted and no additional shares of preferred stock have been issued. The current dividends have been paid.
- Common stock: At the beginning of 2007, 25,000 shares were outstanding. On August 3, 7,000 additional shares were issued. During September, a 20% stock dividend was declared and issued. On November 30, 2,000 shares were reacquired as treasury stock.
- Compensatory share options: Options to acquire common stock at a price of \$33 per share were outstanding during all of 2007. Currently, 4,000 shares may be acquired. To date, no options have been exercised. The unrecognized compensation cost (net of tax) related to these options is \$5 per share.
- Miscellaneous: Stock market prices on common stock averaged \$41 per share during 2007, and the 2007 ending stock market price was \$40 per share. The corporate income tax rate is 30%.

#### Required

- Compute the basic earnings per share. Show supporting calculations.
- Compute the diluted earnings per share. Show supporting calculations.
- Indicate which earnings per share figure(s) Frost Company would report on its 2007 income statement.

**P17-7 AICPA Adapted Earnings Per Share** The controller of Lafayette Corporation has requested assistance in determining income, basic earnings per share, and diluted earnings per share for presentation in the company's income statement for the year ended September 30, 2008. As currently calculated, the company's net income is \$540,000 for fiscal year 2007–2008.

Your working papers disclose the following opening balances and transactions in the company's capital stock accounts during the year:

- Common stock (at October 1, 2007, stated value \$10, authorized 300,000 shares; effective December 1, 2007, stated value \$5, authorized 600,000 shares):
  - Balance, October 1, 2007—issued and outstanding 60,000 shares
  - December 1, 2007—60,000 shares issued in a two-for-one stock split
  - December 1, 2007—280,000 shares (stated value \$5) issued at \$39 per share
- Treasury stock—common:
  - March 3, 2008—purchased 40,000 shares at \$38 per share
  - April 1, 2008—sold 40,000 shares at \$40 per share
- Noncompensatory stock purchase warrants, Series A (initially, each warrant was exchangeable with \$60 for one common share; effective December 1, 2007, each warrant became exchangeable for two common shares at \$30 per share):
  - October 1, 2007—25,000 warrants issued at \$6 each

4. Noncompensatory stock purchase warrants, Series B (each warrant is exchangeable with \$40 for one common share):  
April 1, 2008—20,000 warrants authorized and issued at \$10 each.
5. First mortgage bonds, 5 1/2%, due 2020 (nonconvertible; priced to yield 5% when issued):  
Balance October 1, 2007—authorized, issued, and outstanding—the face value of \$1,400,000
6. Convertible debentures, 7%, due 2027 (initially, each \$1,000 bond was convertible at any time until maturity into 20 common shares; effective December 1, 2007, the conversion rate became 40 shares for each bond):  
October 1, 2007—authorized and issued at their face value (no premium or discount) of \$2,400,000.

The following table shows the average market prices for the company's securities during 2007–2008 :

	Average for Year Ended September 30, 2008
Common stock	37½*
First mortgage bonds	87
Convertible debentures	115
Series A Warrants	15
Series B Warrants	9½

\*Adjusted for stock split.

### Required

Prepare a schedule computing:

1. The basic earnings per share.
2. The diluted earnings per share that should be presented in the Company's income statement for the year ended September 30, 2008.

A supporting schedule computing the numbers of shares to be used in these computations should also be prepared. Assume an income tax rate of 30%.

**P17-8 AICPA Adapted** *Earnings Per Share* Mason Corporation's capital structure is as follows:

	December 31	
	2007	2006
Outstanding shares of:		
Common stock	336,000	300,000
Nonconvertible preferred stock	10,000	10,000
8% convertible bonds	\$1,000,000	\$1,000,000

The following additional information is available:

1. On September 1, 2007, Mason sold 36,000 additional shares of common stock.
2. Net income for the year ended December 31, 2007 was \$750,000.
3. During 2007 Mason paid dividends of \$3 per share on its nonconvertible preferred stock.
4. The 8% convertible bonds are convertible into 40 shares of common stock for each \$1,000 bond.
5. Unexercised compensatory share options to purchase 30,000 shares of common stock at \$20.50 per share were outstanding at the beginning and end of 2007. The average market price of Mason's common stock was \$36 per share during 2007. The market price was \$33 per share at December 31, 2007. The unrecognized compensation cost (net of tax) related to the options is \$2 per share.
6. Warrants to purchase 20,000 shares of common stock at \$38 per share were attached to the preferred stock at the time of issuance. The warrants, which expire on December 31, 2012, were outstanding at December 31, 2007.
7. Mason's effective income tax rate was 30% for 2006 and 2007.

### Required

(Show supporting computations in good form, and round earnings per share to the nearest penny.)

1. Compute the number of shares that should be used for the computation of basic earnings per share for the year ended December 31, 2007.
2. Compute the basic earnings per share for the year ended December 31, 2007.
3. Compute the number of shares that should be used for the computation of diluted earnings per share for the year ended December 31, 2007.
4. Compute the diluted earnings per share for the year ended December 31, 2007.

**P17-9 Dividends** The Keener Company has had 1,000 shares of 7%, \$100 par-value preferred stock and 40,000 shares of \$5 stated-value common stock outstanding for the last three years. During that period, dividends paid totaled \$6,000, \$28,000, and \$30,000 for each year, respectively.

**Required**

Compute the amount of dividends that Keener must have paid to preferred stockholders and common stockholders in each of the three years, given the following four independent assumptions:

1. Preferred stock is nonparticipating and noncumulative
2. Preferred stock is nonparticipating and cumulative
3. Preferred stock is fully participating and cumulative
4. Preferred stock participates up to a maximum of 9% of its par value and is cumulative

**P17-10 AICPA Adapted Dividends** Tomasco, Inc., began operations in January 2003 and had the following reported net income or loss for each of its five years of operations:

2003	\$ 150,000 loss
2004	130,000 loss
2005	120,000 loss
2006	250,000 income
2007	1,000,000 income

At December 31, 2007, the Tomasco capital accounts were as follows:

Common stock, par value \$10 per share; authorized 100,000 shares; issued and outstanding 50,000 shares	\$ 500,000
4% nonparticipating noncumulative preferred stock, par value \$100 per share; authorized, issued, and outstanding 1,000 shares	100,000
8% fully participating cumulative preferred stock, par value \$100 per share; authorized, issued, and outstanding 10,000 shares	1,000,000

Tomasco has never paid a cash or stock dividend. There has been no change in the capital accounts since Tomasco began operations. The appropriate state law permits dividends only from retained earnings.

**Required**

Prepare a work sheet showing the maximum amount available for cash dividends on December 31, 2007 and how it would be distributable to the holders of the common shares and each of the preferred shares. Show supporting computations in good form.

**P17-11 Comprehensive** The Gray Company lists the following stockholders' equity items on its December 31, 2006 balance sheet:

Preferred stock, 8%, \$100 par	\$120,000
Common stock, \$10 par	180,000
Additional paid-in capital on preferred stock	21,600
Additional paid-in capital on common stock	90,000
Total contributed capital	<u>\$411,600</u>
Retained earnings	230,000
Accumulated other comprehensive income	
Unrealized increase in value of available-for-sale securities	6,000
Contributed capital, retained earnings, and accumulated other comprehensive income	\$647,600
Less: Treasury stock (2,000 shares of common at \$21 per share, acquired on March 3, 2006)	<u>(42,000)</u>
Total Stockholders' Equity	<u>\$605,600</u>

The following stock transactions occurred during 2007:

- Jan. 2 Issued 3,000 shares of common stock at \$25 per share.
- Jan. 30 Paid the annual 2006 per share dividend on preferred stock and the \$2 per share dividend on common stock. These dividends had been declared on December 31, 2006.
- Mar. 2 Issued 400 shares of preferred stock at \$125 per share.
- May 7 Reissued 600 shares of treasury stock at \$24 per share.
- June 15 Split the common stock two for one, reducing the par value to \$6 per share.
- July 2 Declared a 5% stock dividend on the outstanding common stock, to be issued on August 3. The stock is selling for \$14 per share.
- Aug. 3 Issued the stock dividend.
- Oct. 1 Declared a property dividend payable to common stockholders on November 1. The dividend consists of 2,000 shares of an investment in Lamb Company available-for-sale common stock, which had been acquired at a cost of \$12 per share and which have a carrying value of \$15 per share. The stock is currently selling for \$16 per share.

- Nov. 1 Issued the property dividend to common stockholders.  
 Dec. 31 Declared the annual per share dividend on the outstanding preferred stock and a \$1 per share dividend on the outstanding common stock, to be paid on January 30, 2008.

**Required**

1. Prepare journal entries to record the preceding transactions.
2. Prepare the December 31, 2007 stockholders' equity section (assume that 2007 net income was \$225,000).

**P17-12 Comprehensive** Included in the December 31, 2006 Jacobi Company balance sheet was the following stockholders' equity section:

Preferred stock, 6%, \$100 par	\$200,000	
Premium on preferred stock	12,000	\$ 212,000
Common stock, \$5 par	\$150,000	
Premium on common stock	240,000	390,000
Total contributed capital		\$ 602,000
Retained earnings		627,000
Accumulated other comprehensive income (loss)		
Unrealized decrease in value of available-for-sale securities		(41,000)
Contributed capital, retained earnings, and accumulated other comprehensive income		\$1,188,000
Less: Treasury stock (1,000 shares of common stock at cost, acquired on 2/3/2006)		(20,000)
Total Stockholders' Equity		<u>\$1,168,000</u>

The company engaged in the following stock transactions during 2007:

- Jan. 2 Paid the semiannual dividend on the outstanding preferred stock and a \$1.60 per share annual dividend on the outstanding common stock. These dividends had been declared on December 1 of 2006.  
 Jan. 5 Issued 500 shares of preferred stock at \$110 per share.  
 Jan. 23 Issued 4,000 shares of common stock at \$23 per share.  
 Apr. 2 Reissued 700 shares of treasury stock at \$24 per share.  
 May 14 Declared a 10% stock dividend on the outstanding common stock, payable on June 29. The common stock is currently selling for \$25 per share.  
 June 5 Declared the semiannual cash dividend on the outstanding preferred stock, payable on July 5.  
 June 29 Issued the stock dividend declared on May 15.  
 July 5 Paid the cash dividend declared on June 5.  
 July 20 Split the common stock two for one and reduced the par value to \$2.50 per share.  
 Aug. 3 Declared a property dividend, payable to common stockholders on September 14. The dividend consists of an investment in 5,000 shares of available-for-sale Drot Company common stock. The stock had been acquired at \$9 per share, but has a carrying value of \$6 per share. The stock is currently selling for \$4 per share.  
 Sept. 14 Paid the property dividend declared on August 3.  
 Dec. 3 Declared the semiannual cash dividend on the outstanding preferred stock and a \$0.90 per share annual dividend on the outstanding common stock.

**Required**

1. Prepare journal entries to record the preceding transactions.
2. Prepare the December 31, 2007 stockholders' equity section (assume that 2007 net income was \$270,000).

**P17-13 Stock Dividends, Splits** The stockholders' equity of the Nance Company prior to any of the following events is as follows:

Preferred stock, 8%, \$100 par	\$100,000
Common stock, \$10 par	150,000
Premium on preferred stock	16,000
Premium on common stock	220,000
Retained earnings	264,000
	<u>\$750,000</u>

The company is considering the following *alternative* items:

1. An 8% stock dividend on the common stock when it is selling for \$30 per share.
2. A 30% stock dividend on the common stock when it is selling for \$32 per share.
3. A *special* stock dividend to common stockholders consisting of one share of preferred stock for every 100 shares of common stock. The preferred stock and common stock are selling for \$123 and \$31 per share, respectively.



4. A two-for-one stock split on the common stock, reducing the par value to \$4 per share (assume the same date for declaration and issuance). The market price is \$30 per share on the common stock.
5. A property dividend to common stockholders consisting of 1,000 shares of West Company common stock. This stock is being carried on the Nance Company books at a cost of \$48 per share; it has a current value of \$54 per share.
6. A cash dividend, consisting of a normal dividend and a liquidating dividend, on both the preferred and the common stock. The 10% preferred dividend includes a 2% liquidating dividend, and the \$2.30 per share common dividend includes a \$0.30 per share liquidating dividend (separate liquidating dividend contra accounts should be used).

#### Required

For each of the preceding *alternative* items:

1. Record (a) the journal entry at the date of declaration, and (b) the journal entry at the date of issuance.
2. Compute the balances in the stockholders' equity accounts immediately after the issuance (any gains or losses are to be reflected in the retained earnings balance; ignore income taxes).

**P17-14 Retained Earnings Statement** The Tate Company began 2007 with a Retained Earnings account balance of \$180,000. During 2007 the following eight events occurred and were properly recorded by the company:

1. Bonds payable with a face value of \$100,000 were issued on January 1 at 98. The bonds mature in 10 years. The bond provisions require the restriction of retained earnings (by means of a note to the financial statements) equal to one-half the face value of the bonds during the period the bonds are outstanding.
2. On April 13 the company reissued 2,400 shares of treasury stock for \$25 per share. The company had reacquired these shares in 2005 at a cost of \$20 per share. At that time, it had restricted retained earnings (by means of a note to the financial statements) in an amount equal to the cost of the treasury shares.
3. On January 5 the company recalled and retired 800 shares of \$100 par preferred stock at the call price of \$120 per share. The stock had originally been issued for \$108 per share.
4. During June the company declared and issued a two-for-one stock split on its common stock, reducing the par value from \$10 to \$5 per share. Immediately prior to the split, 10,000 shares of common stock were outstanding. The stock market price on the date of the split was \$25 per share.
5. In August the company declared and issued a 15% stock dividend when the common stock was selling at \$13 per share.
6. During December the company declared and paid its annual \$1.30 per share cash dividend on the outstanding common stock.
7. Net income amounted to \$72,000.
8. During the year-end audit, it was found that in 2006 the company had recorded depreciation on a particular machine twice. The error resulted in a \$13,000 overstatement of depreciation during 2006. It was also found that, due to an oversight, a \$10,000 loss on the sale of land was omitted from the 2006 income statement. Both items are material. The company has been subject to a 30% income tax rate for several years.

#### Required

Prepare Tate Company's statement of retained earnings and any related notes to its financial statements for the year ended December 31, 2007.

**P17-15 Corrections, Dividends, Retained Earnings Statement** On January 1, 2007 the Fastor Company had a retained earnings balance of \$218,600. It is subject to a 30% corporate income tax rate. During 2007 the company earned net income of \$67,000, and the following events occurred:

1. Cash dividends of \$3 per share on 4,000 shares of common stock were declared and paid.
2. A small stock dividend was declared and issued. The dividend consisted of 600 shares of \$10 par common stock. On the date of declaration the market price of the company's common stock was \$36 per share.
3. The company recalled and retired 500 shares of \$100 par preferred stock. The call price was \$125 per share; the stock had originally been issued for \$110 per share.
4. The company discovered that it had erroneously recorded depreciation expense of \$45,000 in 2006 for both financial reporting and income tax reporting. The correct depreciation for 2006 should have been \$20,000. This is considered a material error.

#### Required

1. Prepare journal entries to record items 1 through 4.
2. Prepare Fastor Company's statement of retained earnings for the year ended December 31, 2007.

**P17-16 Comprehensive** The stockholders' equity of the Cory Company on January 1, 2007 is as follows:

Preferred stock, 8%, \$100 par, callable at \$116	\$100,000
Preferred stock, 7%, \$100 par	150,000
Common stock, \$10 par	220,000
Premium on capital stock	160,000
Retained earnings	<u>182,200</u>
	<u>\$812,200</u>

In January 2007 the company recalled and retired the 8% preferred stock. This stock originally had been issued for \$105 per share. In April it declared and issued a 10% stock dividend on the common stock; the stock was then selling for \$16 per share. This was the only issuance of common or preferred stock during the year. During November the company reacquired as treasury stock 1,000 shares of its common stock at \$18 per share (it uses the cost method for treasury stock). State law requires a restriction of retained earnings equal to the cost of all treasury shares held. The company discloses this restriction by means of a note to the financial statements. In December the annual cash dividends on the outstanding preferred stock and a \$1 per share cash dividend on the outstanding common stock were declared and paid. At the end of December net income of \$87,000 was closed from Income Summary to Retained Earnings. During the year-end audit it was found that two errors had been made during 2006 for both financial reporting and income tax reporting. First, depreciation on certain machinery in the amount of \$10,000 was inadvertently omitted. Second, a mathematical mistake was made in the calculation of the accumulated depreciation related to the sale of equipment. Consequently, the reduction in accumulated depreciation and the amount of the gain recognized were both understated by \$8,000. Both errors are considered material. The company has been subject to a 30% income tax rate for the past several years.

#### Required

1. Prepare journal entries to record the preceding transactions.
2. Prepare Cory Company's statement of retained earnings and any related notes to its financial statements for the year ended December 31, 2007.

**P17-17 Corrections** You are engaged to perform the first audit of the Marble Company for the year ended December 31, 2007. You find the following account balances related to stockholders' equity:

Preferred stock, \$100 par	\$ 30,000
Common stock, \$10 par	65,000
Capital surplus	(16,400)
Retained earnings	150,000

Because of the antiquated terminology and negative balance, you examine the Capital Surplus account first and find in it the following entries:

	Credit (Debit)
Premium on common stock	\$ 27,100
Capital from donated land	16,000
Treasury stock (500 common shares at cost)	(7,500)
Premium on preferred stock	3,000
Stock dividend (50%)	(20,000)
Prior period adjustment (net of income taxes)	(12,000)
Loss from fire (uninsured), 2006	(18,000)
Property dividend declared	(6,000)
Cash dividends declared	<u>(24,000)</u>
Balance	<u>\$(41,400)</u>

Your examination of the Preferred Stock and Common Stock accounts reveals that the amounts shown correctly state the total par value of the issued capital stock. The Retained Earnings account contains the accumulated earnings of the company, with the exception of any items of retained earnings that were inappropriately debited or credited to the Capital Surplus account.

**Required**

1. Prepare whatever journal entries are necessary to eliminate the Capital Surplus account and to correct the Marble Company's stockholders' equity accounts.
2. Prepare a corrected stockholders' equity section of Marble Company's December 31, 2007 balance sheet. Include any related notes to its financial statements.

**P17-18 AICPA Adapted Comprehensive** Ashwood, Inc. is a public enterprise whose shares are traded in the over-the-counter market. At December 31, 2006 Ashwood had 6,000,000 authorized shares of \$10 par value common stock, of which 2,000,000 shares were issued and outstanding. The stockholders' equity accounts at December 31, 2006 had the following balances:

Common stock	\$20,000,000
Additional paid-in capital	7,500,000
Retained earnings	6,470,000

Transactions during 2007 and other information relating to the stockholders' equity accounts were as follows:

1. On January 5, 2007, Ashwood issued at \$54 per share, 100,000 shares of \$50 par value, 9%, cumulative convertible preferred stock. Each share of preferred stock is convertible, at the option of the holder, into two shares of common stock. Ashwood had 600,000 authorized shares of preferred stock.
2. On February 2, 2007, Ashwood reacquired 20,000 shares of its common stock for \$16 per share. Ashwood uses the cost method to account for treasury stock.
3. On April 27, 2007, Ashwood sold 500,000 shares (previously unissued) of \$10 par value common stock to the public at \$17 per share.
4. On June 18, 2007, Ashwood declared a cash dividend of \$1 per share of common stock, payable on July 13, 2007 to stockholders of record on July 2, 2007.
5. On November 9, 2007, Ashwood sold 10,000 shares of treasury stock for \$21 per share.
6. On December 14, 2007, Ashwood declared the yearly cash dividend on preferred stock, payable on January 14, 2008 to stockholders of record on December 31, 2007.
7. On January 18, 2008, before the books were closed for 2007, Ashwood became aware that the ending inventories at December 31, 2006 were understated by \$300,000 (the after-tax effect on 2006 net income was \$210,000). The appropriate correcting entry was recorded the same day.
8. After correcting the beginning inventory, net income for 2007 was \$4,500,000.

**Required**

1. Prepare a statement of retained earnings for Ashwood for the year ended December 31, 2007. Assume that only single-period financial statements for 2007 are presented.
2. Prepare the stockholders' equity section of Ashwood's balance sheet at December 31, 2007.

**P17-19 AICPA Adapted Comprehensive** Carr Corporation had the following stockholders' equity account balances at December 31, 2006:

Preferred stock	\$1,800,000
Additional paid-in capital from preferred stock	90,000
Common stock	5,150,000
Additional paid-in capital from common stock	3,500,000
Retained earnings	4,000,000
Unrealized decrease in value of marketable equity securities	245,000
Treasury common stock	270,000

Transactions during 2007 and other information relating to the stockholders' equity accounts were as follows:

1. Carr's preferred and common shares are traded on the over-the-counter market. At December 31, 2006, Carr had 100,000 authorized shares of \$100 par, 10%, cumulative preferred stock; and 3,000,000 authorized shares of no-par common stock with a stated value of \$5 per share.
2. On January 9, 2007, Carr formally retired all 30,000 shares of its treasury common stock and had them revert to an unissued basis. The treasury stock had been acquired on January 20, 2006. The shares were originally issued at \$10 per share.
3. Carr owned 10,000 shares of Bush, Inc. common stock purchased in 2004 for \$750,000. The Bush stock was included in Carr's short-term marketable securities portfolio at the end of 2006 at a value of \$650,000. On February 13, 2007, Carr declared a dividend-in-kind of one share of Bush for every hundred shares of Carr common stock held by stockholders of record on February 27, 2007. The market price of Bush common stock was \$63 per share on February 13, 2007. The dividend-in-kind was distributed on March 12, 2007.

- On April 2, 2007, 250,000 stock rights were issued to the common stockholders permitting the purchase of one new share of common stock in exchange for one right and \$11 cash. On April 23, 2007, 210,000 stock rights were exercised when the market price of Carr's common stock was \$13 per share. Carr issued new shares to settle the transaction. The remaining 40,000 rights were not exercised and expired.
- On December 10, 2007, Carr declared the yearly cash dividend on preferred stock, payable on January 14, 2008 to stockholders of record on December 31, 2007.
- After the year-end adjustment, the Unrealized Decrease in Value of Marketable Equity Securities account had a debit balance of \$135,000 at December 31, 2007.
- On January 14, 2008, before the accounting records were closed for 2007, Carr became aware that rent income for the year ended December 31, 2006 was overstated by \$500,000. The after-tax effect on 2006 net income was \$275,000. The appropriate correcting entry was recorded the same day.
- After correcting the rent income, net income for 2007 was \$2,600,000.

#### Required

- Prepare Carr's statement of retained earnings for the year ended December 31, 2007. Assume that only single-period financial statements for 2007 are presented.
- Prepare the stockholders' equity section of Carr's balance sheet at December 31, 2007.

**P17-20 Comprehensive** Dana Company reported the following amounts in the stockholders' equity section of its December 31, 2006 balance sheet:

Preferred stock, 9%, \$100 par (10,000 shares authorized, 1,000 shares issued)	\$100,000
Common stock, \$10 par (20,000 shares authorized, 9,000 shares issued)	90,000
Additional paid-in capital on preferred stock	20,000
Additional paid-in capital on common stock	99,000
Retained earnings	330,000

During 2007, the company's net income was \$83,000 and its dividends on preferred and common stock were \$9,900 and \$17,600, respectively. In addition, the following transactions affected its stockholders' equity:

- Purchased 750 shares of its outstanding common stock as treasury stock for \$22 per share.
- Sold 500 shares of treasury stock at \$27 per share. The company uses the cost method to account for treasury stock.
- Retired 200 of the common shares held in the treasury.
- Issued 100 shares of preferred stock for \$125 per share.
- The aggregate market value of the company's long-term investments in available-for-sale equity securities dropped below the carrying value of these securities at year-end. The difference between the carrying value and the year-end market value totals \$10,000 (net of taxes).

#### Required

- Prepare Dana Company's statement of changes in stockholders' equity for 2007. (*Hint:* This statement will include more than 10 numerical columns.) Assume Dana Company reports its comprehensive income in this statement.
- Prepare the stockholders' equity section of Dana Company's balance sheet as of December 31, 2007. Include any related notes to its financial statements.

**P17-21 Comprehensive** The stockholders' equity section of Gaines Industries' balance sheet appeared as follows at December 31, 2006:

Contributed capital	
Preferred stock, 8%, \$100 par (5,000 shares authorized, 3,000 shares issued)	\$ 300,000
Common stock, \$10 par (25,000 shares authorized, 20,000 shares issued of which 500 shares are being held as treasury stock)	200,000
Premium on preferred stock	120,000
Premium on common stock	280,000
Common stock option warrants	32,000
Total contributed capital	<u>\$ 932,000</u>
Retained earnings	<u>260,000</u>
Total contributed capital and retained earnings	\$1,192,000
Less: Treasury stock (500 common shares at \$31)	<u>(15,500)</u>
Total Stockholders' Equity	<u><u>\$1,176,500</u></u>

During 2007, the following chronological transactions were recorded:

1. The company issued 1,000 shares of common stock for \$40 per share.
2. The company has a share option plan for key executives. In accordance with the plan, the shares under option and the option price per share for each executive are known on the grant date. During 2007 no new options were granted, and compensation expense of \$3,000 was recorded in regard to the existing options.
3. Share options to 500 common shares were exercised in 2007 at an option price of \$30 per share. The share option value originally recorded in the Common Stock Option Warrants account in regard to these shares amounted to \$3 per share.
4. The company reissued 200 shares of its treasury stock for \$41 per share.
5. The company accepted land in an industrial park for a factory building site from the Columbus Development Association. The fair value of the land is estimated by an independent appraiser to be \$50,000.
6. The law firm of Crook, Rezich, and Romero agreed to accept 100 shares of preferred stock in lieu of legal fees. At the time the preferred stock was selling for \$142 per share.
7. Net income for 2007 of \$182,000 was transferred from Income Summary to Retained Earnings. Dividends on preferred and common were \$24,800 and \$43,000, respectively (debit Retained Earnings and credit Cash).

#### Required

1. Prepare journal entries to record the preceding 2007 transactions for Gaines Industries.
2. Prepare the statement of changes in stockholders' equity for 2007. (*Hint:* This statement will require 10 numerical columns.)
3. Prepare the stockholders' equity section of the December 31, 2007 balance sheet. Include appropriate notes to the financial statements.
4. Compute the return on stockholders' equity for 2007.

**P17-22 AICPA Adapted** *Stockholders' Equity* Raun Company had the following account titles on its December 31, 2007 trial balance:

9% cumulative convertible preferred stock, \$100 par value  
 Premium on preferred stock  
 Common stock, \$1 stated value  
 Premium on common stock  
 Retained earnings

The following additional information about the Raun Company was available for the year ended December 31, 2007:

1. There were 2 million shares of preferred stock authorized, of which 1 million were outstanding. All 1 million shares outstanding were issued on January 2, 2004 for \$120 a share. The preferred stock is convertible into common stock on a one-for-one basis until December 31, 2013; thereafter, the preferred stock ceases to be convertible and is callable at par value by the company. No preferred stock has been converted into common stock, and there were no dividends in arrears at December 31, 2007.
2. The common stock has been issued at amounts above stated value per share since incorporation in 1989. Of the 5 million shares authorized, 3,580,000 were outstanding at January 1, 2007. The market price of the outstanding common stock has increased slowly but consistently for the last 5 years.
3. The company has an employee share option plan where certain key employees and officers may purchase shares of common stock at 100% of the market price at the date of the option grant. All options are exercisable in installments of one-third each year, commencing one year after the date of the grant, and expire if not exercised within four years of the grant date. On January 1, 2007, options for 70,000 shares were outstanding at prices ranging from \$47 to \$83 a share. Options for 20,000 shares were exercised at \$47 to \$79 a share during 2007. During 2007, no options expired and additional options for 15,000 shares were granted at \$86 a share. The 65,000 options outstanding at December 31, 2007 were exercisable at \$54 to \$86 a share; of these, 30,000 were exercisable at that date at prices ranging from \$54 to \$79 a share.
4. The company also has an employee share purchase plan whereby the company pays one-half and the employee pays one-half of the market price of the stock at the date of the subscription. During 2007, employees subscribed to 60,000 shares at an average price of \$87 a share. All 60,000 shares were paid for and issued late in September 2007.
5. On December 31, 2007, there was a total of 355,000 shares of common stock set aside for the granting of future share options and for future purchases under the employee share purchase plan. The only changes in the stockholders' equity for 2007 were those described previously, 2007 net income, and cash dividends paid.

#### Required

Prepare the stockholders' equity section of the balance sheet of Raun Company at December 31, 2007. Substitute, where appropriate, X's for unknown dollar amounts. Use good form and provide full disclosure. Write appropriate notes as they should appear in the published financial statements.



**P17-23 AICPA Adapted Comprehensive** Fay, Inc. finances its capital needs approximately one-third from long-term debt and two-thirds from equity. At December 31, 2006, Fay had the following liability and equity account balances:

11% debenture bonds payable, face amount	\$5,000,000	Additional paid-in capital	\$2,295,000
Premium on bonds payable	352,400	Retained earnings	2,465,000
Common stock	8,000,000	Treasury stock, at cost	325,000

Transactions during 2007 and other information relating to Fay's liabilities and equity accounts were as follows:

- The debenture bonds were issued on December 31, 2004 for \$5,378,000 to yield 10%. The bonds mature on December 31, 2019. Interest is payable annually on December 31. Fay uses the interest method to amortize bond premium.
- Fay's common stock shares are traded on the over-the-counter market. At December 31, 2006, Fay had 2,000,000 authorized shares of \$10 par common stock.
- On January 16, 2007, Fay reissued 15,000 of its 25,000 shares of treasury stock for \$225,000. The treasury stock had been acquired on February 24, 2006.
- On March 2, 2007, Fay issued a 5% stock dividend on all issued shares. The market price of Fay's common stock at the time of issuance was \$14 per share.
- On November 2, 2007, Fay borrowed \$4,000,000 at 9%, evidenced by an unsecured note payable to United Bank. The note is payable in five equal annual principal installments of \$800,000. The first principal and interest payment is due on November 2, 2008.
- On December 31, 2007, Fay owned 10,000 shares of Ryan Corp.'s common stock, which represented a 1% ownership interest. Fay treats this marketable equity investment as a long-term investment in available-for-sale securities. The stock was purchased on November 2, 2007 at \$20 per share. The market price was \$18 per share on December 31, 2007.
- Fay's net income for 2007 was \$2,860,000.

#### Required

- Prepare the long-term liabilities section of Fay's December 31, 2007 balance sheet, including all disclosures applicable to each obligation.
- Prepare the stockholders' equity section of Fay's December 31, 2007 balance sheet.
- Prepare a schedule showing interest expense for the year ended December 31, 2007.

**P17-24 AICPA Adapted Comprehensive** Min Co. is a publicly held company whose shares are traded in the over-the-counter market. The stockholders' equity accounts at December 31, 2006 had the following balances:

Preferred stock, \$100 par value, 6% cumulative; 5,000 shares authorized; 2,000 issued and outstanding	\$ 200,000
Common stock, \$1 par value, 150,000 shares authorized; 100,000 issued and outstanding	100,000
Additional paid-in capital	800,000
Retained earnings	<u>1,586,000</u>
Total Stockholders' Equity	<u>\$2,686,000</u>

Transactions during 2007 and other information relating to the stockholders' equity accounts were as follows:

- February 2, 2007—Issued 13,000 shares of common stock to Ram Co. in exchange for land. On the date issued, the stock had a market price of \$11 per share. The land had a carrying value on Ram's books of \$135,000, and an assessed value for property taxes of \$90,000.
- March 2, 2007—Purchased 5,000 shares of its own common stock to be held as treasury stock for \$14 per share. Min uses the cost method to account for treasury stock. Transactions in treasury stock are legal in Min's state of incorporation.
- May 11, 2007—Declared a property dividend of marketable securities held by Min to common shareholders. The securities had a carrying value of \$600,000; fair value on relevant dates were:

Date of declaration (May 11, 2007)	\$720,000
Date of record (May 28, 2007)	758,000
Date of distribution (June 4, 2007)	736,000

- October 1, 2007—Reissued 2,000 shares of treasury stock for \$16 per share.
- November 2, 2007—Declared a cash dividend of \$1.50 per share to all common shareholders of record November 16, 2007. The dividend was paid on November 26, 2007.
- December 21, 2007—Declared the required annual cash dividend on preferred stock for 2007. The dividend was paid on January 4, 2008.



- January 14, 2008—Before closing the accounting records for 2007, Min became aware that no amortization had been recorded for 2006 for a patent purchased on July 1, 2006. The patent was properly capitalized at \$320,000 and had an estimated useful life of eight years when purchased. Min's income tax rate is 30%. The appropriate correcting entry was recorded on the same day.
- Adjusted net income for 2007 was \$838,000.

### Required

Determine the amounts of each of the following items. Show supporting calculations.

1. Prior period adjustment
2. Preferred dividends
3. Common dividends—cash
4. Common dividends—property
5. Number of common shares issued at December 31, 2007
6. Total legal capital of common stock issued
7. Additional paid-in capital, including treasury stock transactions
8. Total dollar amount of treasury stock
9. Numerator used in calculation of 2007 earnings per share for the year

## CASES

### COMMUNICATION

#### C17-1 Earnings Per Share

**AICPA Adapted** “Earnings per share” (EPS) is the most featured single financial statistic about modern corporations. Daily published quotations of stock prices also include a “times earnings” figure for many securities that is based on EPS. Often, the focus of analysts’ discussions will be on the EPS of the corporations receiving their attention.

#### Required

1. Explain how dividends or dividend requirements on any class of preferred stock that may be outstanding affect the computation of basic EPS.
2. One of the technical procedures applicable in diluted EPS computations is the “treasury stock method.” Briefly describe the circumstances under which it might be appropriate to apply the treasury stock method.
3. In the case of convertible bonds that are assumed to be converted and are dilutive, explain how they are handled for purposes of diluted EPS computations.

#### C17-2 Complex Capital Structure

**AICPA Adapted** The earnings per share data required of a company depend on the nature of its capital structure. A corporation may have a simple capital structure and compute only “basic earnings per share” or it may have a complex capital structure and have to compute basic earnings per share and “diluted earnings per share.”

#### Required

Define the term *complex capital structure* and discuss the disclosures (both financial and explanatory) necessary for earnings per share when a corporation has a complex capital structure.

#### C17-3 Categories of Capital

**AICPA Adapted** A corporation’s capital (stockholders’ equity) is a very important part of its statement of financial position.

#### Required

Identify and explain the general categories of capital (stockholders’ equity) for a corporation. Be sure to enumerate specific sources included in each general category.

#### C17-4 Dividends and Journal Entries

**AICPA Adapted** Problems may be encountered in accounting for transactions involving the stockholders’ equity section of the balance sheet.

#### Required

1. Explain the significance of the three dates that are important in accounting for cash dividends to stockholders. State the journal entry, if any, needed at each date.
2. Assume retained earnings can be used for stock dividends distributable in shares. What is the effect of an ordinary 10% common stock dividend on retained earnings and total stockholders’ equity?

### C17-5 Stock Dividends and Splits

**AICPA Adapted** Stock splits and stock dividends may be used by a corporation to change the number of shares of its stock outstanding.

#### Required

1. Explain what is meant by a stock split effected in the form of a dividend.

2. From an accounting viewpoint, explain how a stock split effected in the form of a dividend differs from an ordinary stock dividend.
3. How should a stock dividend that has been declared but not yet issued be classified in a statement of financial position? Why?

## CREATIVE AND CRITICAL THINKING

### C17-6 Convertible Securities

**AICPA Adapted** Public enterprises are required to present earnings per share data on the face of the income statement.

#### Required

In regard to the computation of diluted earnings per share, discuss:

1. The effect of dilutive convertible securities.
2. The effect of antidilutive convertible securities.

### C17-7 Share Options and EPS

**AICPA Adapted** Jones Company has adopted a traditional share option plan for its officers and other employees. This plan is properly considered a compensatory plan.

#### Required

Explain how this plan will affect diluted earnings per share.

### C17-8 Dividends and Treasury Stock

**AICPA Adapted** Brady Company has 30,000 shares of \$10 par value common stock authorized and 20,000 shares issued and outstanding. On August 13, 2007 Brady purchased 1,000 shares of treasury stock for \$12 per share. Brady uses the cost method to account for treasury stock. On September 14, 2007 Brady sold 500 shares of the treasury stock for \$14 per share.

In October 2007 Brady declared and distributed 2,000 shares as a stock dividend from unissued shares when the market value of the common stock was \$16 per share.

On December 21, 2007 Brady declared a \$1 per share cash dividend, payable on January 11, 2008 to shareholders of record on December 31, 2007.

#### Required

1. How should Brady account for the cash dividend, and how would it affect Brady's balance sheet at December 31, 2007? Explain why.
2. How should Brady account for the stock dividend, and how would it affect Brady's stockholders' equity at December 31, 2007? Explain why.
3. How should Brady account for the purchase and sale of the treasury stock, and how should the treasury stock be presented in Brady's balance sheet at December 31, 2007?

### C17-9 Analyzing Coca-Cola's Retained Earnings and EPS

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

1. What does the company call its retained earnings? What was the amount at the end of 2004?
2. What was the balance of accumulated other comprehensive income on December 31, 2004? What caused it to change during 2004 and by what amounts?
3. What was the company's basic net income per share for 2004? How much preferred dividends were subtracted in the computation of this income per share? What was the average number of common shares outstanding used in the computation of this income per share? What was the company's diluted net income per share for 2004? How does this amount compare to 2003? What potential common shares were included why?
4. What were the dividends per share and in total for 2004?
5. Compute the return on shareowners' equity for 2004. How does this compare to 2003 (the shareowners' equity was \$11,800 million at the end of 2002)?



### C17-10 Ethics and EPS Adjustment

Ryan Company has as a goal that its earnings per share should increase by at least 3% each year; this goal has been attained every year over the past decade. As a result, the market price per share of Ryan's common stock also has increased each year. Last year (2006) Ryan's earnings per share was \$3. This year, however, is a different story. Because of decreasing sales, preliminary computations at the end of 2007 show that earnings per share will be only \$2.99 per share.

You are the accountant for Ryan Company. Ryan's controller, Jim Nastic, has come to you with some suggestions. He says, "I've noticed that the decrease in revenues has been primarily related to credit sales. Since we have fewer credit sales, I believe we are justified in reducing our bad debts expense from 4 to 2% of net sales. I also think that because of the decreased sales, we won't use our factory equipment as much, so we can extend its estimated remaining life from 10 to 15 years for computing our straight-line depreciation expense. Based on my calculations, if we make these changes, Ryan Company's 2007 earnings per share will be

\$3.06. This will sure make our stockholders happy, not to mention our CEO. You may even get a promotion. What do you think?"

**Required**

From financial reporting and ethical perspectives, prepare a response to Jim Nastic regarding his suggestions.

## RESEARCH SIMULATION

### R17-1 Researching GAAP

**Situation**

In 2007, its first year of operations, Tara Corporation appropriately reported basic earnings per share of \$1.05 on its income statement. During 2008 the company instituted a share option plan and is required to report both basic and diluted earnings per share of \$1.12 and \$0.98, respectively, on its 2008 income statement. In its 2008 annual report, Tara Company presents comparative income statements for 2007 and 2008.

**Directions**

Research the related generally accepted accounting principles and prepare a short memo to Tara Corporation's president that explains how to report the 2007 and 2008 comparative earnings per share in its 2008 annual report. Cite your reference and applicable paragraph numbers.