# Accounting for Earnings per Share

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# Course Description

Earnings per share (EPS) is a popular and useful summary measure of a company's profit performance. It tells you how much profit (or loss) each share of common stock has earned after adjustments for potential dilution from options, warrants, and convertible securities are factored in. This course covers the computation, reporting, presentation, and disclosures associated with earnings per share.

| | |
|---|---|
| **Field of Study** | Accounting |
| **Level of Knowledge** | Overview |
| **Prerequisite** | None |
| **Advanced Preparation** | None |

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# Accounting for Earnings per Share

## Learning Objective

After completing this section, you should be able to:

1. Recognize the difference between two different capital structures—simple and complex – and how earnings per share will be computed for each structure.
2. Identify how to compute earnings per share in a simple capital structure.
3. Identify how to compute earnings per share in a complex capital structure.

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Earnings per share data are frequently reported in the financial press and are widely used by stockholders and potential investors in evaluating the profitability of a company. Earnings per share (EPS) indicates the income earned by each share of common stock. Thus, earnings per share is reported only for common stock. For example, if a company has net income of $500,000 and a weighted average of 100,000 shares of common stock outstanding for the year, earnings per share is $5 ($500,000/100,000).

ASC 260-10, *Earnings Per Share: Overall* (FAS-128, -*Earnings per Share*), covers the computation, reporting, and disclosures associated with earnings per share. It requires public companies to present earnings per share on the face of the income statement. Nonpublic entities are not required to present earnings per share. Basic and diluted per-share amounts for extraordinary items are presented either on the face of the income statement or in the related notes. If the entity's capital structure is simple—that is, it has no potentially dilutive securities—only basic earnings per share needs to be disclosed. However, if the capital structure is complex (it includes potentially dilutive securities), then presentation of both basic and diluted earnings per share is mandated.

*Note: A non*public entity is an entity (1) whose debt or equity securities are not traded in a public market on a foreign or domestic stock exchange or in the over-the-counter market (including securities quoted locally or regionally) or (2) that is not required to file financial statements with the SEC. An enterprise is no longer considered a nonpublic enterprise when its financial statements are issued in preparation for the sale of any class of securities in a public market.

Basic earnings per share (BEPS) take into account only the actual number of outstanding common shares during the period (and those contingently issuable in certain cases).

Diluted earnings per share (DEPS) includes the effect of common shares actually outstanding and the impact of convertible securities, stock options, stock warrants, and their equivalents if dilutive. Diluted earnings per share should not assume the conversion, exercise, or contingent issuance of securities having an antidilutive effect (increasing earnings per share or decreasing loss per share) because it violates conservatism. *Note:*

Earnings per share data are required for each of the following: (a) income from continuing operations, (b) income before extraordinary items, and (c) net income.

# Earnings per Share - Simple Capital Structure

A corporation's capital structure is considered simple if it consists only of common stock or includes no potential common stock that upon conversion or exercise could dilute earnings per common share. (A capital structure is considered complex if it includes securities that could have a dilutive effect on earnings per common share.) The computation of earnings per share for a simple capital structure involves two items (other than net income)—preferred stock dividends and weighted average number of shares outstanding. (see Exhibit 1)

## Preferred Stock Dividends

Basic earnings per share (BEPS) equal net income available to common stockholders divided by the weighted-average number of common shares outstanding. Net income available to common stockholders is net income less declared preferred dividends for the current year. The formula for computing earnings per share is as follows:

EPS = (net income – preferred dividends) / (weighted avg number of shares outstanding)

If the preferred stock is cumulative and the dividend is not declared in the current year, an amount equal to the dividend that should have been declared for the current year only should be subtracted from net income or added to the net loss.

If the preferred stock is noncumulative, preferred stock dividends are subtracted only if they are declared during the period. On the other hand, if the preferred stock is cumulative, the dividends are subtracted even if they are not declared in the current year.

The weighted-average number of common shares outstanding is determined by multiplying the number of shares issued and outstanding for any time period by a fraction, the numerator being the number of months the shares have been outstanding and the denominator being the number of months in the period (e.g., 12 months for annual reporting).

**EXHIBIT 1**

**CALCULATING EPS WITH A SIMPLE CAPITAL STRUCTURE**

Simple Capital Structure
(Single Presentation of EPS)

Compute Income Applicable to Common Stock
(Net Income minus Preferred Dividends)

Compute Weighted Average Number
of Shares Outstanding

EPS = Applicable Income / Number of Shares

**EXAMPLE**

On January 1, 2X12, 100,000 shares were issued. On October 1, 2X12, 10,000 of those shares were reacquired. The weighted average common shares outstanding equals 97,500 shares, computed as follows:

| | | |
|---|---|---|
| 1/1/2X12–9/30/2X12 | (100,000 x 9/12) | 75,000 |
| 10/1/2X12–12/31/2X12 | (    0,000 x 3/12) | 22,500 |
| Weighted outstanding common shares | | 97,500 |

**EXAMPLE**

On January 1, 2X12, 10,000 shares were issued. On April 1, 2X12, 2,000 of those shares were bought back. The weighted average common stock outstanding is 8,500 shares computed as follows:

| | | |
|---|---|---|
| 1/1/2X12–3/31/2X12 | (10,000 x 3/12) | 2,500 |
| 4/1/2X12–12/31/2X12 | ( 8,000 x 9/12) | 6,000 |
| Weighted outstanding common shares | | 8,500 |

## Stock Dividends and Stock Splits

When stock dividends or stock splits occur, computation of the weighted average number of shares requires restatement of the shares outstanding before the stock dividend or split. For example, assume that a corporation had 100,000 shares outstanding on January 1 and issued a 25 percent stock dividend on June 30. For purposes of computing a weighted average for the current year, the additional 25,000 shares outstanding as a result of the stock dividend are assumed to have been outstanding since the beginning of the year. Thus, the weighted average for the year would be 125,000 shares.

The issuance of a stock dividend or stock split is restated, but the issuance or repurchase of stock for cash is not. Why? The reason is that stock splits and stock dividends do not increase or decrease the net assets of the enterprise; only additional shares of stock are issued, and therefore the weighted average shares must be restated. By restating, valid comparisons of earnings per share can be made between periods before and after the stock split or stock dividend. Conversely, the issuance or purchase of stock for cash changes the amount of net assets. As a result, the company either earns more or less in the future as a result of this change in net assets. Stated another way, a stock dividend or split does not change the shareholders' total investment—it only increases (unless it is a reverse stock split) the number of common shares representing this investment.

The shares outstanding prior to the stock dividend must be restated. The shares outstanding from January 1 to June 1 are adjusted for the stock dividend, so that these shares are stated on the same basis as shares issued subsequent to the stock dividend. Shares issued after the stock dividend do not have to be restated because they are on the new basis. The stock dividend simply restates existing shares. The same type of treatment applies to a stock split.

If a stock dividend or stock split occurs after the end of the year, but before the financial statements are issued, the weighted average number of shares outstanding for the year (and for any other years presented in comparative form) must be restated. For example, assume that Hendricks Company computes its weighted average number of shares to be 100,000 for the year ended December 31, 2011. On January 15, 2012, before the financial statements are issued, the company splits its stock 3 for 1. In this case, the weighted average number of shares used in computing earnings per share for 2011 would be 300,000 shares. If earnings per share information for 2010 is provided as comparative information, it also must be adjusted for the stock split.

**EXAMPLE**

The following occurred during the year regarding common stock:

| | |
|---|---|
| Shares outstanding—1/1 | 30,000 |
| 2-for-1 stock split—4/1 | 30,000 |
| Shares issued—8/1 | 5,000 |

The common shares to be used in the denominator of basic EPS is 62,083 shares, computed as follows:

| | | |
|---|---|---|
| 1/1–3/31 | 30,000 x 3/12 x 2 | 15,000 |
| 4/1–8/1 | 60,000 x 4/12 | 20,000 |
| 8/1–12/31 | 65,000 x 5/12 | 27,083 |
| Total | | 62,083 |

**EXAMPLE**

On December 1, 2X12, a company declared and issued an 8% stock dividend on its 200,000 outstanding common shares. The number of common shares to be used in determining basic EPS is $216,000 (200,000 shares x 108%).

**EXAMPLE**

In 20X3, a 15% stock dividend occurs. The weighted-average shares used for previous years' computations have to be increased by 15% to make basic EPS comparable.

**EXAMPLE**

The following information is presented for a company:

| | |
|---|---|
| Preferred stock, $10 par, 6% cumulative, 30,000 shares issued and outstanding | $300,000 |
| Common stock, $5 par, 100,000 shares issued and outstanding | 500,000 |
| Net income | 400,000 |

The company paid a cash dividend on preferred stock. The preferred dividend would therefore equal $18,000 (6% x $300,000). Basic EPS equals $3.82, computed as follows:

*EARNINGS AVAILABLE TO COMMON STOCKHOLDERS*

| | |
|---|---|
| Net income | $400,000 |
| Less: Preferred dividends | (18,000) |
| Earnings available to common stockholders and outstanding | $382,000 |

Basic EPS = $382,000/100,000 shares = $3.82.

**EXAMPLE**

On January 1, 2X12, Stacey Company had the following shares outstanding:

| | |
|---|---|
| 6% Cumulative preferred stock, $100 par value | 150,000 shares |
| Common stock, $5 par value 500,000 shares | 500,000 shares |

During the year, the following occurred:

- On April 1, 2X12, the company issued 100,000 shares of common stock.
- On September 1, 2X12, the company declared and issued a 10% stock dividend.
- For the year ended December 31, 2X12, the net income was $2,200,000.

Basic earnings per share for 2X12 equal $2.06 ($1,300,000/ 632,500 shares), calculated as follows:

*EARNINGS AVAILABLE TO COMMON STOCKHOLDERS*

| | |
|---|---|
| Net income | $2,200,000 |
| Less: Preferred dividend (150,000 shares x $6) | (900,000) |
| Earnings available to common stockholders | $1,300,000 |

*WEIGHTED-AVERAGE NUMBER OF OUTSTANDING COMMON SHARES*

| | | |
|---|---|---|
| 1/1/2X12–3/31/2X12 | (500,000 x 3/12 x 110%) | 137,500 |
| 4/1/2X12–8/31/2X12 | (600,000 x 5/12 x 110%) | 275,000 |
| 9/1/2X12–12/31/2X12 | (660,000 x 4/12) | 220,000 |
| Weighted-average outstanding common shares | | 632,500 |

# Review Questions – Section 1

1. With respect to the computation of earnings per share, which of the following would be most indicative of a simple capital structure?

A. Common stock, preferred stock, and convertible debt outstanding.
B. Common stock, convertible preferred stock, and debt outstanding.
C. Common stock, preferred stock, and debt outstanding.
D. Common stock, preferred stock, and stock options outstanding.

2. Earnings per share disclosures are required for

A. Companies with complex capital structures only.
B. Companies that change their capital structures during the reporting period.
C. Public companies only.
D. Public and private companies.

3. The income statement presents data for primary and fully diluted earnings per share for which of the following? I) Discontinued Operations; II) Extraordinary Items; III) Income from Continuing Operations.

A. I and II only
B. II and III only
C. I and III only
D. I, II, and III

4. Earnings per share disclosures are required

A. Only if the entity has a complex capital structure.
B. For an entity that changes its capital structure.
C. If an entity has issued publicly traded potential common stock.
D. In statements of wholly owned subsidiaries.

5. ASC 260-10, *Earnings Per Share: Overall* (FAS 128-Earnings per Share), requires which of the following policies regarding presentation of extraordinary items?

A. Earnings per share amounts should be presented in a separate schedule.
B. Extraordinary items should be presented as an aggregate amount.

C. Income taxes applicable to extraordinary items should be presented in a separate schedule.
D. Earnings per share amounts should be presented on the face of the income statement or in the notes.

6. Olson Co. had 300,000 shares of common stock issued and outstanding at December 31, 2012. No common stock was issued during 2012. On January 1, 2012, Olson issued 200,000 shares of nonconvertible preferred stock. During 2012, Olson declared and paid $75,000 of cash dividends on the common stock and $60,000 on the preferred stock. Net income for the year ended December 31, 2012 was $330,000. What should be Olson's 2012 basic earnings per common share?

A. $1.10
B. $0.90
C. $0.85
D. $0.65

7. A company has net profit for the current year of 120,000 and pays 5,000 in dividends to its preferred shareholders and 20,000 in dividends to its common shareholders. The weighted-average number of common shares outstanding for the year is 1,500, and the weighted-average number of preferred shares outstanding for the year is 2,500. Basic earnings per share for the current year is

A. 60.00
B. 66.67
C. 76.67
D. 80.00

8. With regard to stock dividends and stock splits, current authoritative literature contains what general guideline for the computation of EPS?

A. If changes in common stock resulting from stock dividends, stock splits, or reverse splits have been consummated after the close of the period but before completion of the financial report, the per-share computations should be based on the new number of shares.
B. It is not necessary to give recognition to the effect on prior periods' computations of EPS for stock dividends or stock splits consummated in the current period.
C. Computations of EPS for prior periods must give recognition to changes in common shares due to stock splits, but not stock dividends, because stock dividends have an immaterial effect on EPS.
D. Footnote disclosure is necessary for anticipated stock dividends and stock splits and their effect on basic earnings per share and diluted earnings per share.

9. The weighted-average number of common shares outstanding is determined by multiplying the number of shares issued by 12 months. True or False?

# Diluted Earnings per Share

If potentially dilutive securities exist that are outstanding, such as convertible bonds, convertible preferred stock, stock options, or stock warrants, both basic and diluted earnings per share (DEPS) must be presented. (see Exhibit 2)

$$\text{Diluted EPS} = \left(\frac{\text{Net income – Preferred dividend}}{\text{Weighted ave. no. of shares outstanding}}\right)$$

minus (Impact of convertible securities)

minus (Impact of options, warrants and other dilutive securities)

## Diluted EPS—Convertible Securities

In the case of convertible securities, the *if-converted method* must be used. Under this approach, it is assumed that the dilutive convertible security is converted into common stock at the beginning of the period or date of issue, if later. If conversion is assumed, the interest expense (net of tax) that would have been incurred on the convertible bonds must be added back to net income in the numerator. Any dividend on convertible preferred stock would also be added back (dividend savings) to net income in the numerator. The add-back of interest expense (net of tax) on convertible bonds and preferred dividends on convertible preferred stock results in an adjusted net income figure used to determine earnings per share. Correspondingly, the number of common shares the convertible securities are convertible into (or their weighted-average effect if conversion to common stock actually took place during the year) must also be added to the weighted-average outstanding common shares in the denominator.

The weighted-average number of common shares outstanding is determined by relating the portion of the reporting period that the shares were outstanding to the total time in the period. Weighting is necessary because some shares may have been issued or reacquired during the period. However, a stock dividend increases the shares outstanding (the number of parts into which ownership is divided) with no effect on the company's net assets and therefore future earnings. Accordingly, unlike sales or purchases of shares, that is, transactions affecting net assets and future earnings, stock dividends must be accounted for retroactively for the sake of comparability. ASC 260-10 therefore requires that the increase in shares resulting from a stock dividend be given retroactive recognition in the EPS computations for all periods presented. Non-retroactive treatment of stock dividends would create a dilution in EPS of the current period compared with prior periods that would give the false impression of a decline in profitability.

*Note:* Assume there are two dilutive convertible securities.  The one that should be used first to recalculate earnings per share is the security with the smaller earnings adjustment per share adjustment.

**EXHIBIT 2**

**CALCULATING EPS WITH A COMPLEX CAPITAL STRUCTURE**

**Complex Capital Structure**

(Dual Presentation of EPS)

Basic Earnings per Share

*Formula*: Income applicable to common stock divided by weighted average number of common shares

Diluted Earnings per Share

(includes all potentially dilutive securities)

Convertible Securities

Options and Warrants

Contingent Issuance Agreements

*Formula*: Income applicable to common stock adjusted for interest (net of tax) and preferred dividends on all dilutive securities divided by weighted average number of common shares assuming dilution from all dilutive securities

## Diluted EPS—Options and Warrants

In the case of dilutive stock options, stock warrants, or their equivalent, the *treasury stock method* is used. Under this approach, there is a presumption that the option or warrant was exercised at the beginning of the period, or date of grant if later. The assumed proceeds received from the exercise of the option or warrants are assumed to be used to buy treasury stock at the fair value (average market price) for the period. However, exercise is presumed to occur only if the average market price of the underlying shares during the period is greater than the exercise price of the option or warrant. This presumption ensures that the assumed exercise of a stock option or warrant will have a dilutive effect on the earnings-per-share computation. Correspondingly, the denominator of diluted earnings per share increases by the number of shares assumed issued owing to the exercise of options or warrants reduced by the assumed treasury shares purchased.

**EXAMPLE**

One hundred shares are under a stock option plan at an exercise price of $10. The average market price of stock during the period is $25. The assumed issuance of common shares because of the assumed exercise of the stock options is 60, computed as follows:

| | | | | | | |
|---|---|---|---|---|---|---|
| Issued shares from option | 100 | shares | x | $10 | = | $1,000 |
| Less: Treasury shares | 40 | shares* | x | $25 | = | $1,000 |
| Additional shares that must be issued to satisfy option holders | 60 | shares | | | | |

*It is assumed that $1,000/$25 = 40 shares were acquired.

If options are granted as part of a stock-based compensation arrangement, the assumed proceeds from the exercise of the options under the treasury stock method include deferred compensation and the resulting tax benefit that would be credited to paid-in-capital arising from the exercise of the options.

As a result of the if-converted method for convertible dilutive securities and the treasury stock method for stock option plans and warrants, the denominator of diluted earnings-per-share computation equals the weighted average outstanding common shares for the period plus the assumed issue of common shares arising from convertible securities plus the assumed shares issued because of the exercise of stock options or stock warrants, or their equivalent.

Exhibit 3 defines each type of dilutive security and describes its potential impact on common stock.

**EXHIBIT 3**
**SUMMARY OF DILUTIVE SECURITIES**

| Dilutive Security | Defined | Impact |
|---|---|---|
| Convertible bonds | Bonds that can be converted into common stock | Will result in additional shares of common stock when converted |
| Convertible preferred stock | Preferred stock that can be converted into common stock | Will result in additional shares of common stock when converted |
| Warrants | The right to purchase shares of common stock at an established price | Will result in additional shares of common stock when the right is exercised |
| Stock options | The right of an employee to purchase additional shares of common stock at an established price | Will result in additional shares of common stock when the right is exercised |

Exhibit 4 shows in summary form the earnings-per-share computations.

**EXHIBIT 4**
**EARNINGS-PER-SHARE FRACTIONS**

*BASIC EARNINGS PER SHARE =*

$$\frac{\text{Net income available to common stockholders}}{\text{Weighted average number of common shares outstanding}}$$

*DILUTED EARNINGS PER SHARE =*

$$\frac{\text{Net income available to common stockholders + Net of tax Interest and/or dividend on convertible securities}}{\text{Weighted average number of common shares outstanding + Effect of convertible securities + net effect of stock options}}$$

**EXAMPLE**

This example assumes the same information about the Dauber Company given in the example from the previous section, Basic Earnings per Share. It is further assumed that potentially dilutive securities outstanding include 5% convertible bonds (each $1,000 bond is convertible into 25 shares of common stock) having a face value of $5,000,000. There are options to buy 50,000 shares of common stock at $10 per share. The average market price for common shares is $25 per share for 20X1. The tax rate is 30%.

**Basic Earnings per Share**

$$\frac{\text{Net income available to common stockholders}}{\text{Weighted average number of common shares outstanding}} =$$

$$\frac{\$1,300,000}{632,500} = \$2.06$$

**Diluted Earnings per Share**

| | | |
|---|---|---|
| Income for diluted earnings per share: | | |
| Earnings available to common stockholders | | $1,300,000 |
| Interest expense on convertible bonds | | |
| ($5,000,000 x .05) | $250,000 | |
| Less: Tax savings ($250,000 x .30) | (75,000) | |
| Interest expense (net of tax) | | $ 175,000 |
| Income for diluted earnings per share | | $1,475,000 |

| | | |
|---|---|---|
| Shares outstanding for diluted earnings per share: | | |
| Weighted-average outstanding common shares | | 632,500 |
| Assumed issued common shares for convertible bonds (5,000 bonds x 25 shares) | | 125,000 |
| Assumed issued common shares from exercise of option | 50,000 | |
| Less: Assumed repurchase of treasury shares (50,000 x $10 = $500,000/$25) | (20,000) | 30,000 |
| Shares outstanding for diluted earnings per share | | 787,500 |

Diluted earnings per share for 20X1 are $1.87 ($1,475,000/787,500 shares). Diluted earnings per share must be disclosed because the two securities (the 5% convertible bond and the stock options) had an aggregately dilutive effect on earnings per share. That is, earnings per share decreased from $2.06 to $1.87. The required disclosures are indicated as follows:

*EARNINGS-PER-SHARE DISCLOSURE*

| | |
|---|---|
| Basic Earnings per Share: | $2.05 |
| Diluted Earnings per Share: | $1.87 |

If the exercise price is lower than the market price of the stock, then the proceeds from exercise are not sufficient to buy back all the shares. The incremental shares remaining are added to the weighted average number of shares outstanding for purposes of computing diluted earnings per share. For example, if the exercise price of a warrant is $5 and the fair market value of the stock is $15, the treasury stock method would increase the shares outstanding. Exercise of the warrant would result in one additional share outstanding, but the $5 received for the one share issued is not sufficient to purchase one share in the market at $15. Three warrants would have to be exercised (and three additional shares issued) to produce enough money ($15) to acquire one share in the market. Thus, a net increase of two shares outstanding would result.

To see this computation using larger numbers, assume 1,500 options outstanding at an exercise price of $30 for a common share and a common stock market price per share of $50. Through application of the treasury stock method there would be 600 incremental shares outstanding, computed as follows.

| | |
|---|---|
| Proceeds from exercise of 1,500 options (1,500 x $30) | $45,000 |
| | |
| Shares issued upon exercise of options | 1,500 |
| Treasury shares purchasable with proceeds ($45,000/$50) | 900 |
| Incremental shares outstanding (potential common shares) | 600 |

*Note:* The incremental number of shares may be more simply computed:

$$\frac{\text{Market price - Option price}}{\text{Market price}} \text{ x Number of options = Number of shares}$$

$$\frac{\$50-\$30}{\$50} \text{ x 1,500 options = 600 shares}$$

Thus, if the exercise price of the option or warrant is lower than the market price of the stock, dilution occurs. If the exercise price of the option or warrant is higher than the market price of the stock, common shares are reduced. In this case, the options or warrants are antidilutive because their assumed exercise leads to an increase in earnings per share.

For both options and warrants, exercise is not assumed unless the average market price of the stock is above the exercise price during the period being reported. As a practical matter, a simple average of the weekly or monthly prices is adequate, so long as the prices do not fluctuate significantly. *Note*: Options and warrants have essentially the same assumptions and computational problems, although the warrants may allow or require the tendering of some other security, such as debt, in lieu of cash upon exercise. In such situations, the accounting becomes quite complex. FASB No. 128 explains the proper disposition in this situation.

## The Reverse Treasury Stock Method

The reverse treasury stock method is used when the entity has entered into contracts to repurchase its own stock, for example, when it has written put options. When the contracts are in the money (the exercise price exceeds the average market price), the potential dilutive effect on EPS is calculated by

- Assuming the issuance at the beginning of the period of sufficient shares to raise the proceeds needed to satisfy the contracts
- Assuming those proceeds are used to repurchase shares
- Including the excess of shares assumed to be issued over those assumed to be repurchased in the calculation of the DEPS denominator

Options held by the entity on its own stock, whether they are puts or calls, are not included in the calculation of the DEPS denominator because their effect is antidilutive.

## Antidilutive Securities

In computing earnings per share, all antidilutive securities should be ignored. A security is considered to be antidilutive if its inclusion does not cause earnings per share to go down. In computing earnings per share, the aggregate of all dilutive securities must be considered. However, in order to exclude the ones that should not be used in the computation, it is necessary to ascertain which securities are individually dilutive and which ones are antidilutive. As was previously noted, a stock option will be antidilutive if the underlying market price of the stock that can be purchased is less than the exercise price of the option. A convertible security is antidilutive if the exercise of the convertible bond or preferred stock causes an increase in the earnings-per-share computation compared to that derived before the assumed conversion. In this situation, the additive effect to the numerator and denominator as a result of the conversion causes earnings-per-share to increase. In both of these situations, the antidilutive securities should be ignored in the calculation.

**EXAMPLE**

A company's net income for the year is \$100,000. A 10% \$2,000,000 convertible bond was outstanding all year that was convertible into 2,000 shares of common stock. The weighted average number of shares of common stock outstanding all year was 200,000. The income tax rate was 30%.

*Basic earnings per share*

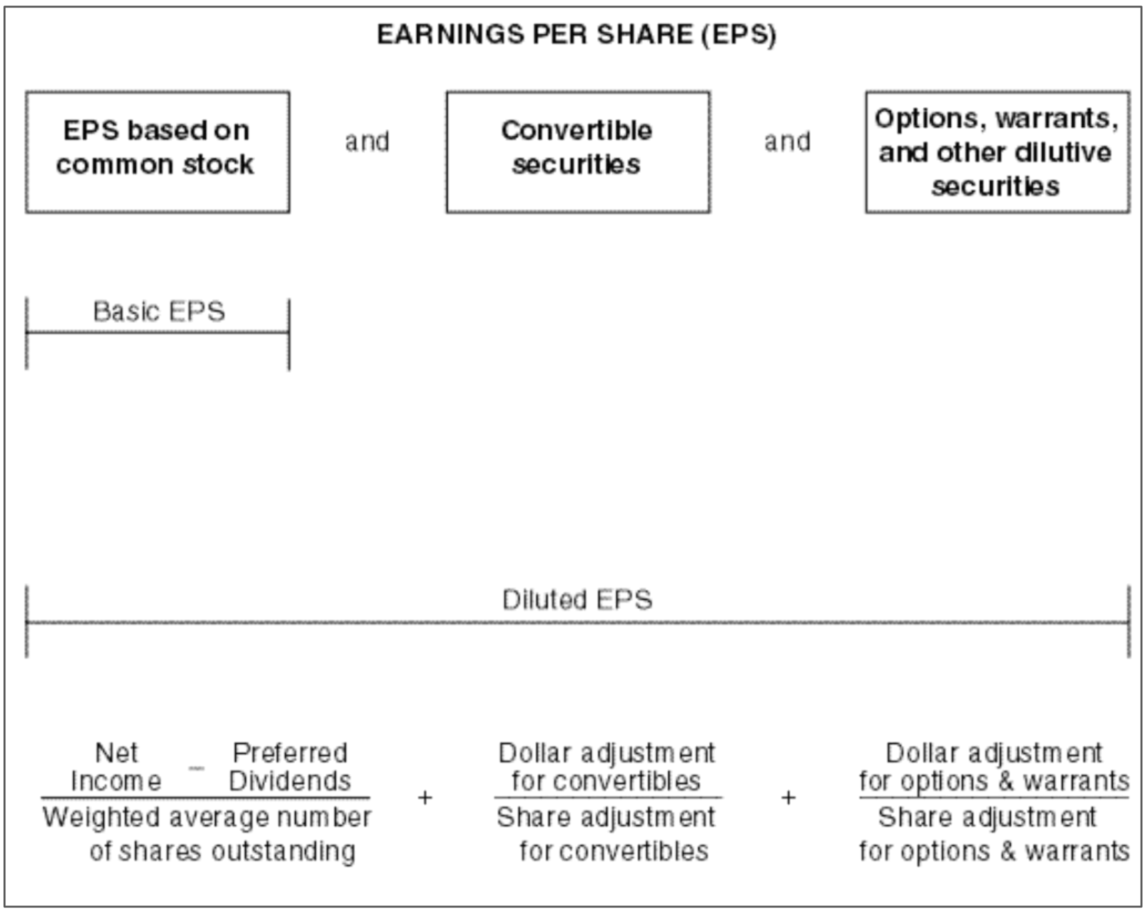
$$\frac{\$100{,}000}{200{,}000} = \$.50$$

*Diluted earnings per share*

$$\frac{\$100{,}000 + 200{,}000\ (1\text{-}30\%)}{200{,}000 + 2{,}000} = \frac{\$240{,}000}{202{,}000} = \$1.19$$

Because earnings per share increased as a result of the inclusion of the convertible bond, the bond is antidilutive and should be excluded from the calculation. Only basic earnings per share should be disclosed here.

**EXHIBIT 4**




**EXAMPLE**

Davis Company has basic earnings per share of $14 for 2X12. There were no conversions or exercises of convertible securities during the year. However, possible conversion of convertible bonds would have reduced earnings per share by $2. The impact of possible exercise of stock options would have increased earnings per share by $.38. Diluted earnings per share for 2X12 equal $12 ($14–$2). *Note:* The dilutive convertible bonds are considered in deriving diluted earnings per share, but the stock options are ignored because they have an antidilutive effect.

## EPS and Specialized Disclosures on the Income Statement

If a corporation's capital structure is complex, the earnings per share presentation would be as follows:

| | |
|---|---|
| Earnings per common share: | |
| Basic earnings per share | 5.60 |
| Diluted earnings per share | 4.90 |

When net income of a given period includes specialized activities disclosures, including income or loss from discontinued operations, and extraordinary items, earnings-per-share disclosure is required for each of these categories. US GAAP requires that per-share amounts for each of these amounts be shown either on the face of the income statement or in the notes to the financial statements.

Basic earnings per share and diluted earnings per share, (if required) for income from continuing operations and net income, must be disclosed on the face of the income statement. In addition, the earnings-per-share effects associated with the disposal of a business segment and extraordinary gains or losses must be presented either on the face of the income statement or notes thereto. A presentation reporting extraordinary items only is given below.

| | |
|---|---|
| Basic earnings per share | |
| Income before extraordinary item | $3.80 |
| Extraordinary item | 0.80 |
| Net income | $3.00 |
| | |
| Diluted earnings per share | |
| Income before extraordinary item | $3.35 |
| Extraordinary item | 0.65 |
| Net income | $2.70 |

A reconciliation is required of the numerators and denominators for basic and diluted earnings per share. Disclosure is also mandated for the impact of preferred dividends in arriving at income available to common stockholders.

Other disclosures include:

- Information on the capital structure.

- Assumptions made.
- Number of shares converted.
- Rights and privileges of securities, such as dividend and participation rights, call prices, and conversion ratios.

Earnings per share amounts must be shown for all periods presented. Also, all prior period earnings per share amounts presented should be restated for stock dividends and stock splits. If diluted EPS data are reported for at least one period, they should be reported for all periods presented, even if they are the same as basic EPS. When results of operations of a prior period have been restated as a result of a prior period adjustment, the earnings per share data shown for the prior periods should also be restated. The effect of the restatement should be disclosed in the year of the restatement.

Complex capital structures and dual presentation of earnings per share require the following additional disclosures in note form.

- Description of pertinent rights and privileges of the various securities outstanding.
- A reconciliation of the numerators and denominators of the basic and diluted per share computations, including individual income and share amount effects of all securities that affect EPS.
- The effect given preferred dividends in determining income available to common stockholders in computing basic EPS.
- Securities that could potentially dilute basic EPS in the future that were not included in the computation because they would be antidilutive.
- Effect of conversions subsequent to year-end, but before statements have been issued.

Exhibit 5 indicates the line items on a hypothetical income statement for which EPS should be presented. Exhibit 6 is an excerpt from Hewlett-Packard’s 2010 annual report.

**EXHIBIT 5**
**PRESENTATION OF EPS**

| | | |
|---|---|---|
| Net sales | xxx | |
| Cost of sales | xxx | |
| Gross profit | xxx | |
| Operating expenses | xxx | |
| Income from operations | xxx | |
| Other income or expense | xxx | |
| Income from continuing operations before income taxes | xxx | |
| Income taxes | xxx | |
| **Income from continuing operations** | **xxx** | → **EPS*** |
| Discontinued operations (net of tax): | | |
| Income or loss from operations (net of tax) | xxx | → EPS† |
| Gain or loss from disposal (net of tax) | xxx | → EPS† |
| Income before extraordinary items | xxx | → EPS† |
| Extraordinary items (net of tax) | xxx | → EPS† |
| Cumulative effect of change in accounting principle (net of tax) | xxx | → EPS† |
| **Net income** | **xxx** | → **EPS*** |

*EPS is required on the face of the statement.
†EPS is required either on the face of the statement or in the notes.

**EXHIBIT 6**

**HEWLETT PACKARD 2012 ANNUAL REPORT**

## NOTE 3: NET EARNINGS PER SHARE

**Note 3: Net Earnings Per Share (Continued)**

The reconciliation of the numerators and denominators of the basic and diluted earnings and loss per share calculations was as follows for the following fiscal years ended October 31:

| | 2012 | 2011 | 2010 |
|---|---|---|---|
| | In millions, except per share amounts | | |
| Numerator: | | | |
| Net (loss) earnings [1] | $ (12,650) | $ 7,074 | $ 8,761 |
| Denominator: | | | |
| Weighted-average shares used to compute basic EPS | 1,974 | 2,094 | 2,319 |
| Dilutive effect of employee stock plans [2] | — | 34 | 53 |
| Weighted-average shares used to compute diluted EPS [2] | 1,974 | 2,128 | 2,372 |
| Net (loss) earnings per share: | | | |
| Basic | $ (6.41) | $ 3.38 | $ 3.78 |
| Diluted [2] | $ (6.41) | $ 3.32 | $ 3.69 |

[1] Net (loss) earnings available to participating securities were not significant for fiscal years 2012, 2011 and 2010. HP considers restricted stock that provides the holder with a non-forfeitable right to receive dividends to be a participating security.

[2] For the fiscal year 2012, HP excluded from the calculation of diluted loss per share 10 million shares potentially issuable under employee stock plans, as their effect, if included, would have been anti-dilutive.

HP excludes options with exercise prices that are greater than the average market price from the calculation of diluted earnings per share because their effect would be anti-dilutive. In fiscal years 2012, 2011 and 2010, HP excluded from the calculation of diluted earnings (loss) per share options to purchase 56 million shares, 25 million shares and 5 million shares, respectively. In addition, HP also excluded from the calculation of diluted earnings (loss) per share options to purchase an additional 1 million shares, 1 million shares and 2 million shares in fiscal years 2012, 2011 and 2010, respectively, whose combined exercise price, unamortized fair value and excess tax benefits were greater in each of those periods than the average market price for HP's common stock because their effect would be anti-dilutive.

## Interim Financial Reports

Extraordinary items, nonrecurring items, and gain or loss on the disposal of a business segment are recognized in the interim period in which they occur. Earnings per share determination for interim purposes is handled in a fashion similar to annual reporting.

Accounting Principles Board (APB) 28 (ASC 270-10) does not require presentation of interim income statements and statements of financial position, or of changes in investment policy. Although interim financial statements may be presented, minimum disclosures required when a publicly held company does issue a financial summary of interim operations include

1. Primary and fully diluted EPS.
2. Sales or gross revenues, provision for taxes, extraordinary items, and net income.
3. Seasonal revenues and costs.
4. Significant changes in estimates or provisions for income taxes.
5. Disposal of a segment and extraordinary, unusual, or infrequent items.
6. Contingent items.
7. Significant cash flows.

**IFRS Treatment.** The calculations of basic and diluted earnings per share (EPS) are similar under U.S. GAAP and IFRS, with some minor differences. First, both require EPS to be reported on the face of the income statement if the shares are traded publicly. U.S. GAAP and IFRS each report EPS for income from continuing operations and for net income or loss; however, U.S. GAAP requires EPS for discontinued operations and extraordinary items. In addition, under U.S. GAAP, if the treasury stock method of calculating incremental shares is used, a quarterly calculation of the average stock price is used. IFRS calculates the incremental shares based on a weighted-average at the end of the accounting period, not at the end of each quarter. This topic is one that the two boards are jointly working on in order to converge accounting treatments.

# ASC, FASB, and the Difference between GAAP and IFRS

| Topic | FASB Accounting Standards Codification (ASC) | Original FASB Standard | Corresponding IASB Standard | Differences between U.S. GAAP and IFRS |
|---|---|---|---|---|
| *Computing basic EPS* | ASC 260-10-45 par. 10-11 | FAS No. 128 Par. 8-9 | IAS 33 Par. 9-29 | No substantial Differences |
| *Computing diluted earnings per share* | ASC 260-10-45 par. 16-17 | FAS No. 128 Par. 11,13 | IAS 33 Par. 30-44 | No substantial differences |
| *Participating securities and the two-class method* | ASC 260-10-45 par. 59A-66 | FAS No. 128 Par. 60-61 EITF 03-06 | IAS 33 Par. A13-A14 | No substantial differences |
| *Treasury stock method for options* | ASC 260-10-45 par. 23,25 | FAS No. 128 Par. 17-18 | IAS 33 Par. 45-48 | No substantial differences |
| *If-converted method for converted securities* | ASC 260-10-45 par. 40-42 | FAS No. 128 Par. 26-28 | IAS 33 Par. 49-51 | No substantial differences |
| *Impact of actual conversion or exercise* | ASC 260-10-45 par. 17 | FAS No. 128 Par. 13 | IAS 33 Par. 38 | No substantial differences |
| *Proper order of consideration for multiple potentially diluted securities* | ASC 260-10-45 par. 18 | FAS No. 128 Par. 14-15 | IAS 33 Par. 44 | No substantial differences |
| *Disclosures associated with basic and diluted EPS* | ASC 260-10-50 par. 1-2 | FAS No. 128 Par. 40-41 | IAS 33 Par. 70-73A | No substantial differences |

## Is Earnings Per Share a Meaningful Number?

Earnings per share (EPS) is a popular and useful summary measure of a company's profit performance. It tells you how much profit (or loss) each share of common stock has earned after adjustments for potential dilution from options, warrants, and convertible securities are factored in. EPS data are reported in the financial news and are prominent in corporate annual reports even though EPS suffers as a financial performance measure.

EPS ignores the amount of capital required to generate the reported earnings. This is easy to show with the following example that contrasts the financial performance of two companies:

| | *Company A* | *Company B* |
|---|---|---|
| Net income available to common shareholders | $ 1,000,000 | $ 1,000,000 |
| Weighted-average common shares outstanding | 100,000 | 100,000 |
| Basic earnings per share | $ 10 | $ 10 |
| Gross assets | $20,000,000 | $30,000,000 |
| Liabilities | $10,000,000 | $10,000,000 |
| Equity capital (assets — liabilities) | $10,000,000 | $20,000,000 |
| Return on equity | 10% | 5% |

Both Company A and Company B report identical basic EPS of $10. But Company B needed twice as much equity capital and 50% more gross assets to attain the $1,000,000 net income. Even though both companies report the same level of net income and EPS, Company B has a return on equity of only 5%, while Company A's figure is 10%. Company A generates more earnings from existing resources—that is, equity capital.

Because EPS ignores capital commitments, problems can arise when trying to interpret it. The narrow focus of the EPS ratio clouds comparisons between companies as well as year-to-year EPS changes for a single company. For example, even if year-to-year earnings' levels are the same, a company can "improve" its reported EPS by simply repurchasing some previously outstanding common shares.

## Pro Forma EPS Confusion

Many companies are reporting pro forma EPS numbers along with U.S. GAAP-based EPS numbers in the financial information provided to investors. Pro forma earnings typically exceed GAAP earnings because the pro forma numbers exclude such items as restructuring charges, impairments of assets, R&D expenditures, and stock compensation expense. Some examples are given below

| Company | GAAP EPS | Pro Forma EPS |
|---|---|---|
| Broadcom | (6.36) | (0.13) |
| Corning | (0.24) | 0.09 |
| General Motors | (0.41) | 0.85 |
| Honeywell | (0.38) | 0.44 |
| International Paper | (0.57) | 0.14 |
| Qualcomm | (0.06) | 0.20 |

*Source:* Company Web site press releases.

The SEC has expressed concern that pro forma earnings may be misleading. For example, Trump Hotels & Casino Resorts (DJT) was cited for abuses related to a recent third-quarter pro forma EPS release. The SEC noted that the firm misrepresented its operating results by excluding a material, one-time \$81.4 million charge in its pro forma EPS statement and including an undisclosed nonrecurring gain of \$17.2 million. The gain enabled DJT to post a profit in the quarter. The SEC emphasized that DJT's pro forma EPS statement deviated from conservative U.S. GAAP reporting. Therefore, it was "fraudulent" because it created a "false and misleading impression" that DJT had actually (1) recorded a profit in the third quarter and (2) exceeded consensus earnings expectations by enhancing its operating fundamentals.

The Sarbanes-Oxley Act of 2002 requires the SEC to develop regulations on pro forma reporting. As a consequence, the SEC Regulation G now requires companies that provide pro forma financial information to make sure that the information is not misleading. In addition, a reconciliation between pro forma and GAAP information, including EPS measures, is required. This reconciliation is particularly crucial, given the expected boost in pro forma reporting by companies adding back employee stock-option expense.

*Sources:* SEC Accounting and Enforcement Release No. 1499 (January 16, 2002); "SEC Proposes Rules to implement Sarbanes-Oxley Act Reforms," SEC Press Release 2002-155 (October 30, 2002). M Moran, A.J. Cohen, K. Shaustyuk, "Stock Option Expensing: The Battle Has been Won: Now Comes the Aftermath," *Portfolio Strategy/Accounting*. Goldman Sachs (March 17, 2005).

# Review Questions – Section 2

10. In computing the weighted-average number of shares outstanding during the year, which of the following midyear events must be treated as if it had occurred at the beginning of the year?

A. Declaration and distribution of a stock dividend.
B. Purchase of treasury stock.
C. Sale of additional common stock.
D. Sale of preferred convertible stock.

11. Niewha Co. had 120,000 shares of common stock outstanding at January 1, 2012. On July 1, 2012, it issued 40,000 additional shares of common stock. Outstanding all year were 10,000 shares of nonconvertible cumulative preferred stock. What is the number of shares that Niewha should use to calculate 2012 basic earnings per share (BEPS)?

A. 140,000
B. 150,000
C. 160,000
D. 170,000

12. On January 1, Nexus Company, whose stock is publicly traded, had 100,000 shares of common stock issued and outstanding. On April 1, Nexus issued a 10% stock dividend. The number of shares to be used in the computation of basic earnings per share for 2012 is

A. 100,000
B. 105,000
C. 107,500
D. 110,000

13. On June 1, 2012, Juniper Inc. issued convertible debt instruments that were properly classified as potential ordinary shares. Juniper's ordinary shares and the convertible instruments are publicly traded. In its presentation of earnings per share at December 31, 2012, Juniper should include the convertible instruments in the computation of

A. Basic earnings per share only.
B. Basic and diluted earnings per share only if they are antidilutive.
C. Basic and diluted earnings per share only if they are dilutive.
D. Diluted earnings per share only.

14. In computing diluted earnings per share (DEPS), the equivalent number of shares of convertible preferred stock is added as an adjustment to the denominator (number of shares outstanding). If the preferred stock is preferred as to dividends, which amount should then be added as an adjustment to the numerator (earnings available to common shareholders)?

A. Annual preferred dividend.
B. Annual preferred dividend times (1 - the income tax rate).
C. Annual preferred dividend times the income tax rate.
D. Annual preferred dividend divided by the income tax rate.

15. The purchase of treasury shares with an enterprise's surplus cash

A. Increases an enterprise's financial leverage.
B. Increases an enterprise's equity.
C. Increases an enterprise's interest coverage ratio.
D. Dilutes an enterprise's earnings per share.

16. In the calculation of diluted earnings per share (DEPS), the number of shares assumed to be outstanding will increase whenever the exercise price of an option is

A. Below the fair value of the common shares.
B. Equal to the par value of the common shares.
C. Greater than the fair value of the common shares.
D. Below the par value of the common shares.

17. In deriving earnings per share, the treasury method is used to account for convertible securities. True or False?

18. The treasury stock method assumes that the options are exercised at the grant date and the proceeds from the exercise of options are used to sell treasury stock. True or False?

19. The treasury stock method will increase the number of shares outstanding whenever the exercise price of an option or warrant is below the market price of the common stock. True or False?

20. The if-converted method for a convertible bond assumes that the conversion of the convertible securities at the beginning of the period even if issued during the period. True or False?

21. Which one of the following items would likely increase earnings per share (EPS) of a company?

A. Purchase of treasury shares.
B. Declaration of a share split.
C. Declaration of a share dividend.
D. A reduction in the amount of cash dividends paid.

22. Antidilutive securities are securities which upon their conversion or exercise decrease earnings per share (or increase the loss per share). True or False?

23. Antidilutive securities should be ignored in all calculations and should not be considered in computing diluted earnings per share. True or False?

24. Earnings per share data are required only for income from continuing operations. True or False?

25. Interim reporting disclosures should include all of the following EXCEPT

A. Fully diluted earnings per share.
B. Significant changes in estimates for income tax.
C. Contingent items.
D. Changes in investment policy.

26. EPS and return on equity (ROE) provide identical rankings for a company's financial performance. True or False?

27. Pro forma earnings tend to exceed U.S. GAAP earnings. True or False?

28. Deaton, Inc. had 300,000 shares of common stock issued and outstanding at December 31, 2011. On July 1, 2012, an additional 50,000 shares of common stock were issued for cash. Deaton also had issued unexercised

stock options to purchase 40,000 shares of common stock at $15 per share outstanding at the beginning and end of 2012. The average market price of Deaton's common stock was $20 during 2012. What number of shares should be used in computing diluted earnings per share for the year ended December 31, 2012?

A. 325,000
B. 335,000
C. 360,000
D. 365,000

# Glossary

**Antidilutive securities.** Securities which upon conversion or exercise increase earnings per share (or reduce the loss per share).

**Complex capital structure.** When a corporation's capital structure includes securities that could have a dilutive effect on earnings per common share.

**Convertible bonds.** A security that combines the benefits of a bond with the privilege of exchanging it for stock at the holder's option.

**Convertible preferred stock.** Preferred stock which is convertible into common stock at the holder's option.

**Diluted earnings per share.** Earnings per share based on the number of common shares outstanding plus all contingent issuances of common stock that could reduce earnings per share.

**Dilutive securities.** Securities that are not common stock in form, but enable their holders to obtain common stock upon exercise or conversion. Examples include convertible bonds, convertible preferred stocks, stock warrants, and contingent shares.

**Discontinued operations.** The disposal of a significant segment of a business.

**Earnings per share.** The net income earned by each share of outstanding common stock.

**Extraordinary items.** Nonrecurring material items that differ significantly from the entity's typical business activities.

**If-converted method.** The method used to measure the dilutive effect of convertible securities which assumes (1) the conversion of the convertible securities at the beginning of the period (or at the time of issuance of the security, if issued during the period), and (2) the elimination of interest, net of tax or preferred dividend.

**Nondetachable stock warrants.** Warrants that cannot be sold separately form their bonds.

**Simple capital structure.** When a corporation's capital structure consists only of common stock or includes no potentially dilutive convertible securities, options, warrants, or other rights that upon conversion or exercise could in the aggregate dilute earnings per common share.

**Stock option.** A warrant which gives selected employees the option to purchase common stock at a given price over an extended period of time.

**Stock option plans.** Long-term compensation plans which attempt to develop in executives a strong loyalty toward the company by giving them an equity interest based on changes in long-term measures such as increases in earnings per share, revenues, stock price, or market share.

**Stock warrants.** Certificates entitling the holder to acquire shares to stock at a certain price within a stated period.

**Treasury stock method.** The method used to measure the dilutive effect of options and warrants which assumes (1) the options or warrants are exercised at the beginning of the year (or date of issue if later), and (2) the proceeds from the exercise of options and warrants are used to purchase common stock for the treasury.

**Weighted average number of outstanding.** The basis for the per share amounts reported which shares reflects shares issued or purchased during the period by calculating the number of shares outstanding by the fraction for the period they are outstanding.

# Index

# Review Question Answers

## Section 1

1. With respect to the computation of earnings per share, which of the following would be most indicative of a simple capital structure?

A. Incorrect. A simple capital structure does not include convertible securities.
B. Incorrect. Convertible securities are a part of a complex capital structure.
C. **Correct.** ASC 260-10, *Earnings Per Share: Overall* (FAS 128-Earnings per Share), defines a simple capital structure as one that has only common stock outstanding. A complex capital structure is one that contains potential common stock. Potential common stock includes options, warrants, convertible securities, contingent stock requirements, and any other security or contract that may entitle the holder to obtain common stock.
D. Incorrect. Stock options are potential common stock.

2. Earnings per share disclosures are required for

A. Incorrect. Public companies with either complex or simple capital structures must disclose EPS.
B. Incorrect. Whether companies change their capital structure during the reporting period is irrelevant to whether they must make EPS disclosures.
C. **Correct.** ASC 260-10, *Earnings Per Share: Overall* (FAS 128-Earnings per Share), applies to companies with publicly traded common stock or potential common stock. It also applies to companies that have filed or are in the process of filing with a regulatory body in preparation for issuing such securities. Furthermore, if EPS data are presented by nonpublic companies, they must comply with ASC 260-10. EPS disclosures are therefore required only for public companies.
D. Incorrect. Private entities need not present EPS data.

3. The income statement presents data for primary and fully diluted earnings per share for which of the following? I) Discontinued Operations; II) Extraordinary Items; III) Income from Continuing Operations.

A. Incorrect. EPS data are presented for income from continuing operations.
B. Incorrect. EPS data are presented for discontinued operations.
C. Incorrect. EPS data are presented for extraordinary items.

D. **Correct.** Earnings per share data are presented for both primary and fully diluted EPS for each period presented for each of the following, if they exist: income from continuing operations, discontinued operations, extraordinary items, and net income.

4. Earnings per share disclosures are required

A. Incorrect. An entity with a simple capital structure (one with only common stock outstanding) must also make EPS disclosures if it is within the scope of ASC 260-10.
B. Incorrect. Whether an entity's capital structure has changed does not determine the need for EPS disclosures.
C. **Correct.** ASC 260-10, Earnings Per Share: Overall (FAS 128-Earnings per Share), applies to all entities that have issued publicly traded common stock or potential common stock (e.g., options, warrants, convertible securities, or contingent stock agreements). ASC 260-10 also applies if an entity has made, or is in the process of making, a filing with a regulatory body to prepare for the public sale of such securities. It does not apply to investment companies or to statements of wholly owned subsidiaries.
D. Incorrect. ASC 260-10 does not apply to statements of wholly owned subsidiaries.

5. ASC 260-10, *Earnings Per Share: Overall* (FAS 128-Earnings per Share), requires which of the following policies regarding presentation of extraordinary items?

A. Incorrect. EPS amounts may be presented either on the face of the income statement or in the notes.
B. Incorrect. Extraordinary items should be presented individually, rather than in the aggregate, and on the face of the income statement, if practicable; otherwise, disclosure in related notes is acceptable (APB 30).
C. Incorrect. Income taxes applicable to extraordinary items should be presented on the face of the income statement or in a related note.
D. **Correct.** Basic and diluted per share amounts for extraordinary items are presented either on the face of the income statement or in the related notes. Prior to the issuance of ASC 260-10, APB 15 required presentation of EPS amounts for income before extraordinary items and net income on the face of the income statement.

6. Olson Co. had 300,000 shares of common stock issued and outstanding at December 31, 2012. No common stock was issued during 2012. On January 1, 2012, Olson issued 200,000 shares of nonconvertible preferred stock. During 2012, Olson declared and paid $75,000 of cash dividends on the common stock and $60,000 on the preferred stock. Net income for the year ended December 31, 2012 was $330,000. What should be Olson's 2012 basic earnings per common share?

A. Incorrect. $1.10 assumes no preferred dividends were declared.
B. **Correct.** Basic earnings per common share are equal to the amount of earnings available to the common shareholders divided by the weighted-average number of shares of common stock outstanding during

the year. To calculate earnings available to holders of common stock, dividends on cumulative preferred stock must be subtracted from net income whether or not the dividends were declared. Earnings per common share for 2001 thus amounted to $0.90. ($330,000 - $60,000) / 300,000 shares = $0.90

C. Incorrect. $0.85 assumes the common but not the preferred dividends were subtracted from the numerator.
D. Incorrect. $0.65 assumes all dividends are subtracted from the numerator.

7. A company has net profit for the current year of 120,000 and pays 5,000 in dividends to its preferred shareholders and 20,000 in dividends to its common shareholders. The weighted-average number of common shares outstanding for the year is 1,500, and the weighted-average number of preferred shares outstanding for the year is 2,500. Basic earnings per share for the current year is

A. Incorrect. 60.00 results from dividing net profit by half of the sum of the weighted-average of preferred shares and the weighted-average of common.
B. Incorrect. 66.67 subtracts common dividends, instead of preference dividends, from net profit.
C. **Correct.** Basic earnings per share indicates the profit earned by each ordinary share. The numerator equals net profit attributable to ordinary shareholders (net profit - preference dividends). The denominator is the weighted-average number of ordinary shares outstanding over the accounting period. Thus, BEPs for the current year is 76.67 [(120,000 - 5,000)/1,500 shares].
D. Incorrect. 80.00 results from not subtracting the preference dividends from net profit.

8. With regard to stock dividends and stock splits, current authoritative literature contains what general guideline for the computation of EPS?

A. **Correct.** When a stock dividend, stock split, or reverse split occurs at any time before issuance of the financial statements, restatement of EPS is required for all periods presented. The purpose is to promote comparability of EPS data among reporting periods.
B. Incorrect. The effect of stock dividends and stock splits on prior-period earnings must be calculated, and EPS data should be restated for all periods presented in the financial statements.
C. Incorrect. Stock dividends and stock splits are treated the same for EPS purposes regardless of their amounts.
D. Incorrect. A stock dividend or stock split is not accounted for or disclosed until it occurs.

9. The weighted-average number of common shares outstanding is determined by multiplying the number of shares issued by 12 months. True or False?

True is incorrect. Multiplying the number of shares issued by 12 months yields a simple average.

False is correct. The weighted-average number of common shares outstanding is determined by multiplying the number of shares issued and outstanding for any time period by a fraction, the numerator being the number of months the shares have been outstanding and the denominator being the number of months in the period (e.g., 12 months for annual reporting).

## Section 2

10. In computing the weighted-average number of shares outstanding during the year, which of the following midyear events must be treated as if it had occurred at the beginning of the year?

A. **Correct.** The weighted-average number of common shares outstanding is determined by relating the portion of the reporting period that the shares were outstanding to the total time in the period. Weighting is necessary because some shares may have been issued or reacquired during the period. However, a stock dividend increases the shares outstanding (the number of parts into which ownership is divided) with no effect on the company's net assets and therefore future earnings. Accordingly, unlike sales or purchases of shares, that is, transactions affecting net assets and future earnings, stock dividends must be accounted for retroactively for the sake of comparability. ASC 260-10 therefore requires that the increase in shares resulting from a stock dividend be given retroactive recognition in the EPS computations for all periods presented. Non-retroactive treatment of stock dividends would create a dilution in EPS of the current period compared with prior periods that would give the false impression of a decline in profitability.
B. Incorrect. Purchase of treasury stock is accounted for currently but not retroactively in the EPS computations. They affect the net assets and future earnings of the corporation.
C. Incorrect. Sale of additional common stock for cash changes the amount of net assets. As a result, the company either earns more or less in the future as a result of this change in net assets. Therefore, it should be accounted for currently in the EPS computations.
D. Incorrect. Sale of preferred convertible stock affects the net assets and future earnings of the corporation. It does not have to be accounted for retroactively in the EPS computations.

11. Niewha Co. had 120,000 shares of common stock outstanding at January 1, 2012. On July 1, 2012, it issued 40,000 additional shares of common stock. Outstanding all year were 10,000 shares of nonconvertible cumulative preferred stock. What is the number of shares that Niewha should use to calculate 2012 basic earnings per share (BEPS)?

A. **Correct.** Basic earnings per share (BEPS) is used to measure earnings performance based on common stock outstanding during the period. BEPS equals income available to common shareholders divided by the weighted-average number of common shares outstanding. The weighted-average number of common shares outstanding relates the portion of the period that the shares were outstanding to the total time in the period. Consequently, the number of shares used to calculate BEPS is 140,000 {120,000 shares outstanding throughout the period + [40,000 shares x (6 months ÷ 12 months)]}.

B. Incorrect. 150,000 includes the preferred shares.
C. Incorrect. 160,000 includes the unweighted number of additional shares.
D. Incorrect. 170,000 includes the preferred shares and does not weight the additional common shares.

12. On January 1, Nexus Company, whose stock is publicly traded, had 100,000 shares of common stock issued and outstanding. On April 1, Nexus issued a 10% stock dividend. The number of shares to be used in the computation of basic earnings per share for 2012 is

A. Incorrect. 100,000 ignores the stock dividend.
B. Incorrect. 105,000 treats the stock dividend as occurring on July 1, 2012.
C. Incorrect. 107,500 treats the stock dividend as occurring on the actual issue date.
D. **Correct.** A stock dividend or split occurring at any time must be treated as though it occurred at the beginning of the earliest period presented for purposes of computing the weighted-average number of shares. Thus, prior-period BEPS or DEPS figures presented for comparative purposes must be retroactively restated for the effects of a stock dividend or a stock split. Nexus issued 10,000 shares (100,000 x 10% dividend) as a stock dividend. Hence, the number of shares to be used in the computation of BEPS is 110,000 (100,000 + 10,000).

13. On June 1, 2012, Juniper Inc. issued convertible debt instruments that were properly classified as potential ordinary shares. Juniper's ordinary shares and the convertible instruments are publicly traded. In its presentation of earnings per share at December 31, 2012, Juniper should include the convertible instruments in the computation of

A. Incorrect. BEPS does not include the effects of potential ordinary shares, whether or not dilutive. Hence, DEPS must also be disclosed if dilutive potential ordinary shares are outstanding.
B. Incorrect. The effects of dilutive (not antidilutive) potential ordinary shares are included in the computation of DEPS. Potential ordinary shares, whether or not dilutive, are excluded from the BEPS computation.
C. Incorrect. Potential ordinary shares, whether or not dilutive, are excluded from the BEPS computation.
D. **Correct.** EPS data should be disclosed when an enterprise's ordinary shares or potential ordinary shares are publicly traded or when an enterprise is in the process of issuing such shares in public markets. BEPS (net profit or loss attributable to ordinary shareholders divided by the weighted average of ordinary shares outstanding) should always be disclosed by publicly traded enterprises. DEPS equals BEPS adjusted for the effects of all dilutive potential ordinary shares. Consequently, the effects of the convertible debt instruments are reflected only in DEPS.

14. In computing diluted earnings per share (DEPS), the equivalent number of shares of convertible preferred stock is added as an adjustment to the denominator (number of shares outstanding). If the preferred stock is

preferred as to dividends, which amount should then be added as an adjustment to the numerator (earnings available to common shareholders)?

A. **Correct.** If a capital structure has convertible preferred stock with a dilutive effect on DEPS, the "if-converted" method is used. This method assumes the conversion of the preferred stock occurred at the beginning of the accounting period or at issuance, if later. The annual preferred dividend is accordingly added back to earnings available to common shareholders (the numerator of the DEPS ratio).
B. Incorrect. The tax rate is not a consideration when making adjustments.
C. Incorrect. The preferred dividend is paid with after-tax dollars; preferred dividends are not tax deductible.
D. Incorrect. The tax rate is not an issue with the preferred stock dividend and not used in this calculation.

15. The purchase of treasury shares with an enterprise's surplus cash

A. **Correct.** A purchase of treasury share involves a decrease in assets (usually cash) and a corresponding decrease in shareholders' equity. Thus, equity is reduced and the debt-to-equity ratio and financial leverage increase.
B. Incorrect. Equity (assets - liabilities) declines. A treasury share purchase is equivalent to a special dividend because assets are paid out to one or more shareholders.
C. Incorrect. A firm's interest coverage ratio is unaffected. Earnings, interest expense, and taxes will all be the same regardless of the transaction.
D. Incorrect. The purchase of treasury share is antidilutive; the same earnings will be spread over fewer shares. Some firms purchase treasury share for this reason.

16. In the calculation of diluted earnings per share (DEPS), the number of shares assumed to be outstanding will increase whenever the exercise price of an option is

A. **Correct.** Basic earnings per share (BEPS) equals net profit attributable to ordinary shareholders divided by the weighted average of outstanding ordinary shares. For the purpose of calculating diluted EPS (DEPS), the denominator is increased by the weighted-average number of ordinary shares that might be issued upon conversion of dilutive potential ordinary shares. Conversion is deemed to have occurred at the beginning of the period or the date of issue of the potential shares, if later. Thus, the exercise of dilutive options and other dilutive potential ordinary shares should be assumed. The assumed proceeds are deemed to be from the issue of shares at fair value. The difference between the shares issued and the number issued at fair value is regarded as an issue for no consideration. Thus, if the fair value (average price for the period) is greater than the option price, the number of ordinary shares deemed to be issued for no consideration is added to the EPS denominator. They have no effect on the numerator.
B. Incorrect. Par value is irrelevant to EPS calculations.
C. Incorrect. If the exercise price is equal to or greater than fair value, no dilution will occur.

D. Incorrect. The important values are the exercise price and the fair value (the average price).

17. In deriving earnings per share, the treasury method is used to account for convertible securities. True or False?

True is incorrect. In deriving earnings per share, the if-converted method is used for convertible securities.

False is correct. In the case of dilutive stock options, stock warrants, or their equivalent, the *treasury stock method* is used.

18. The treasury stock method assumes that the options are exercised at the grant date and the proceeds from the exercise of options are used to sell treasury stock. True or False?

True is incorrect. Under the treasury stock approach, there is a presumption that the option was exercised at the beginning of the period, or date of grant if later.

False is correct. The treasury stock method assumes that the options or warrants are exercised at the beginning of the year (or date of issue if later) and the proceeds from the exercise of options and warrants are used to purchase common stock for the treasury.

19. The treasury stock method will increase the number of shares outstanding whenever the exercise price of an option or warrant is below the market price of the common stock. True or False?

True is correct. Exercise is presumed to occur only if the average market price of the underlying shares during the period is greater than the exercise price of the option or warrant.

False is incorrect. The assumed exercise of a stock option or warrant when the market price is greater than the exercise price will have a dilutive effect on the earnings-per-share computation.

20. The if-converted method for a convertible bond assumes that the conversion of the convertible securities at the beginning of the period even if issued during the period. True or False?

True is incorrect. Under the if-converted approach, it is assumed that the dilutive convertible security is converted into common stock at the beginning of the period or date of issue, if later.

False is correct. The if-converted method for a convertible bond assumes the conversion of the convertible securities at the beginning of the period (or at the time of issuance of the security, if issued during the period).

21. Which one of the following items would likely increase earnings per share (EPS) of a company?

A. **Correct.** A purchase of treasury shares increases earnings per share because fewer shares will be outstanding. The numerator of the EPS fraction (net profit attributable to ordinary shareholders) remains unchanged, but the denominator (number of shares outstanding) decreases.
B. Incorrect. A share split reduces EPS. More shares are outstanding after the split.
C. Incorrect. A share dividend increases the shares outstanding and therefore decreases EPS.
D. Incorrect. A change in cash dividends paid has no effect on EPS. Cash dividends have no effect on shares outstanding or on net profit attributable to ordinary shareholders.

22. Antidilutive securities are securities which upon their conversion or exercise decrease earnings per share (or increase the loss per share). True or False?

True is incorrect. A security is considered to be antidilutive if its inclusion does not cause earnings per share to go down.

False is correct. Antidilutive securities are securities which upon their conversion or exercise increase earnings per share (or decrease the loss per share).

23. Antidilutive securities should be ignored in all calculations and should not be considered in computing diluted earnings per share. True or False?

True is correct. In computing earnings per share, all antidilutive securities should be ignored.

False is incorrect. A security is considered to be antidilutive if its inclusion does not cause earnings per share to go down. In computing earnings per share, the aggregate of all dilutive securities must be considered.

24. Earnings per share data are required only for income from continuing operations. True or False?

True is incorrect. EPS calculations use other classifications of income data as well.

False is correct. Earnings per share data are required for each of the following: A income from continuing operations, (b) income before extraordinary items, and (c) net income.

25. Interim reporting disclosures should include all of the following EXCEPT

A. Incorrect. Interim reporting disclosures should include primary and fully diluted earnings per share.

B. Incorrect. Interim reporting disclosures should include both significant changes in estimates or significant changes in provisions for income tax.
C. Incorrect. Interim reporting disclosures should include contingent items along with a number of other items, including significant cash flows.
D. **Correct.** APB 28 does not require presentation of interim income statements and statements of financial position, or of changes in investment policy. Although interim financial statements may be presented, minimum disclosures are required when a publicly held company does issue a financial summary of interim operations.

26. EPS and return on equity (ROE) provide identical rankings for a company's financial performance. True or False?

True is incorrect. EPS ignores the amount of capital required to generate the reported earnings while ROE does (i.e., ROE equals earnings divided by stockholders'' equity.)

False is correct. EPS and ROE are two different measures of financial performance. EPS data are reported in the financial news and are prominent in corporate annual reports even though EPS suffers as a financial performance measure.

27. Pro forma earnings tend to exceed U.S. GAAP earnings. True or False?

True is correct. Pro forma earnings typically exceed GAAP earnings because the pro forma numbers exclude such items as restructuring charges, impairments of assets, R&D expenditures, and stock compensation expense.

False is incorrect. The SEC now requires companies that provide pro forma financial information to make sure that the information is not misleading. In addition, a reconciliation between pro forma and U.S. GAAP EPS information is required.

28. Deaton, Inc. had 300,000 shares of common stock issued and outstanding at December 31, 2011. On July 1, 2012, an additional 50,000 shares of common stock were issued for cash. Deaton also had issued unexercised stock options to purchase 40,000 shares of common stock at $15 per share outstanding at the beginning and end of 2012. The average market price of Deaton's common stock was $20 during 2012. What number of shares should be used in computing diluted earnings per share for the year ended December 31, 2012?

A. Incorrect. 325,000 does not include the 10,000 shares includible due to the stock option.
B. **Correct.** On July 1, 2012, 50,000 shares of common stock were issued. Hence, for the purpose of calculating Deaton's weighted-average number of shares, 300,000 shares should be considered outstanding for the first 6 months and 350,000 shares for the second 6 months, a weighted average of 325,000 shares. Dilutive call options and warrants are included in DEPS. These options are assumed to

be exercised at the beginning of the period using the treasury stock method. This method assumes the options are exercised and the $600,000 of proceeds (40,000 options x $15) is used to repurchase shares. In the DEPS computation, the assumed repurchase price is the average market price for the period ($20), so 30,000 shares are assumed to be repurchased ($600,000 / $20). The difference between the shares assumed to be issued and those repurchased (40,000 - 30,000 = 10,000) is added to the weighted average of common shares outstanding to determine the DEPS denominator. Thus, 335,000 (325,000 + 10,000) shares should be used in computing DEPS for the year ending December 31, 2012.

C. Incorrect. 360,000 includes the full 50,000 shares sold on July 1 instead of the weighted-average number of shares of 25,000.

D. Incorrect. 365,000 includes the full 40,000 shares covered by the stock options instead of the amount computed under the treasury stock method.