Accounting For Pensions and Postretirement Benefits

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## **Course Description**

The pension fund is a separate legal and accounting entity. Although a company is not required to have a pension plan, if it does it must follow financial accounting standards and government accounting and presentation dictates. The major types of pension plans are defined contribution and defined benefit. The course presents reporting by a trustee for the plan, including the requirements surrounding pension plan financial statements. The accounting for settlements, curtailments, and terminations is presented. Postretirement benefit plans other than pensions are also discussed. Finally, the accounting and reporting for postemployment benefits are presented.

Field of Study Level of Knowledge Prerequisite Advanced Preparation Accounting Overview None None

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# Accounting for Pension and Postretirement Benefits

## Learning Objectives:

After studying this course you will be able to:

- 1. Distinguish between defined contribution and defined benefit pension plans.
- 2. Recognize terminology used in pension plan accounting.
- 3. Calculate pension expense costs in a defined benefit plan.
- 4. Identify the reporting requirements for pension plans in financial statements.
- 5. Identify the differences between pensions and postretirement health care benefits.
- 6. Recognize differences in accounting for pensions vs. accounting for other postretirement benefits.
- 7. Identify proposed changed to the IFRS pension accounting standards.

The major types of pension plans are defined contribution and defined benefit. The reporting by a trustee for the plan is also presented, including the requirements surrounding pension plan financial statements. The accounting for settlements, curtailments, and terminations is presented. Postretirement benefit plans other than pensions are also discussed. Finally, the accounting and reporting for postemployment benefits are presented.

## **Pension Plans**

Pension accounting is divided and treated separately between the employer's accounting and the accounting for the pension fund. The employer incurs the cost and makes contributions to the pension fund. The fund (plan) is the entity that receives the contributions, administers pension assets, and makes benefit payments to retirees. The assets and liabilities of a pension plan are not included in the employer's financial statements. **The pension fund is a separate legal and accounting entity.** It provides benefits to employees at retirement, death, disability, or some other covered event. Many pension plans allow for early retirement or termination of service.

Although a company is not required to have a pension plan, if it does it must follow financial accounting standards and government accounting and presentation dictates. Pension costs must be accounted for under the accrual basis. Pension expense is accrued as services are rendered. Reasonable estimates and averages may be used for future events in computing pension expense. Pension expense is presented in the income statement as a single amount. Pension expense is reflected in the service periods using a method that considers the benefit formula. The American Institute of CPAs (AICPA) has issued an *Industry Audit and Accounting Guide for Employee Benefit Plans*.

Pension expenses for administrative personnel are expensed, but those for factory workers are inventoriable.

The relationship among the parties in a pension plan is shown in Exhibit 1.



The purpose of pension accounting is to communicate the funded status of defined benefit postretirement plans in a clear and comprehensive way. Employers must incorporate future salary levels in measuring pension expense and the present obligation if the plan benefit includes them. The benefits/years-of-service actuarial method, which computes pension expense based on future compensation levels, should be used. The employer is required to fund at least the annual service cost computed under the plan.

Employers must incorporate future salary levels in measuring pension expense and the present obligation if the plan benefit includes them. ASC 715 (FAS-158) adopts the benefits/years-of-service actuarial method, which computes pension expense based on future compensation levels. The employer is required to fund at least the annual service cost computed under the plan.

There are two kinds of pension plans: defined contribution and defined benefit. In *defined contribution plans*, the amount to be contributed each year by the employer is specified; the benefits to be paid at retirement are not specified or known. Defined contribution plan benefits equal the value of each participant's account balance. Examples of such plans include employee stock ownership, profit sharing, and money purchase. In *defined benefit plans*, the amount to be received by retirees is specified. The employer contributes amounts to fund the accumulation benefit. In most cases, annuity payments are made.

**Note:** The requirements of ASC 962-10-05 also apply to pension plans outside the United States, as long as they are similar to U.S. plans. In some countries, it may be the custom to pay employee benefits upon voluntary or involuntary termination of employees.

Employers usually design a pension plan so it qualifies under the federal tax law. This allows for the tax deductibility of pension expense as well as tax-free status of income generated from pension fund assets.

## Terminology

Terminology peculiar to pension plans follows:

Benefit Information Date. The date that actuaries use to determine the present value of accumulated benefits.

**Vested Benefits**. The employee is entitled to pension benefits at retirement even if he or she leaves the employ of the company. In a single-employer plan, the employee must vest after five years; in a multiemployer plan, the employee must vest after 10 years. Although disclosure is required of the vested benefit obligation, it is not a component of the net periodic pension expense. If a pension plan is terminated, the employer is liable for the vested benefit obligation. According to ASC 715-30-35-40, *Compensation—Retirement Benefits: Defined Benefit Plans— Pension*, the vested benefit obligation can be the discounted value of vested benefits the worker is eligible to receive if he or she leaves immediately or the discounted value of vested benefits the employee is presently entitled to based on his or her anticipated date of departure or retirement. This is mostly of concern to foreign plans.

*Net Assets Available for Pension Benefits.* The excess of pension assets over pension liabilities. The pension liability does not include employees' accumulated benefits.

Actuarial Assumptions. Assumptions used by actuaries to compute pension expense and cash payment to the trustee. Examples of assumptions needed for mathematical computations are turnover rate, return rate, salary levels, retirement age, withdrawal, disablement, administrative costs, life expectancy, retirement age, and the length of time that benefits will be paid.

**Actuarial Cost Method**. The funding method actuaries use to calculate the employer's contribution so adequate funds will be available when workers retire. The method will determine the pension expense and associated liability.

*Unrecognized Net Gain or Loss.* The cumulative net gain or loss that has not been recognized as a component of pension expense.

Actuarial Present Value of Accumulated Plan Benefits. The discounted (time value) amount of money necessary to meet retirement obligations for current and retired employees. The calculation considers such factors as withdrawal, death, and disability.

**Accumulated Benefit Obligation (ABO)**. The year-end pension obligation based on past and current salaries, not future compensation levels. It is the actuarial present value of vested and nonvested benefits attributable to the pension plan based on services rendered to date. It assumes that compensation to plan participants does not change. Attrition of current participants is considered, but no consideration is given to employees who will enter

the plan in later years. If the pension plan is terminated, the amount of any unfunded accumulated benefit obligation continues as a liability of the employer.

**Projected Benefit Obligation (PBO)**. The year-end pension obligation based on projected future salaries. It measures the deferred compensation amount and relates to the discounted value of benefits (whether vested or nonvested) earned to date. It is the measure of pension obligation that is required to be used for reporting the service cost component of pension expense. The employer does not record the projected benefit obligation on its books. It is only maintained on a worksheet record.

Exhibit 2 presents three different measures of the pension obligation---vested benefits, accumulated benefit obligation (both vested and nonvested) using current salary levels, and projected benefit obligation (both vested and nonvested) using **future salaries**. Because future salaries are expected to be higher than current salaries, this approach results in the largest measurement of the pension obligation.



#### **Exhibit 2: Different Measures of the Pension Obligation**

In the case of pension plans with flat-benefit or non-pay-related pension benefit formulas, the accumulated benefit obligation and the projected benefit obligation amounts will be the same.

The projected benefit obligation (PBO) is used to calculate interest cost, prior service cost, and corridor amounts in the actuarial gains or losses computation.

*Market-Related Asset Value*. The fair market value of pension plan assets or a calculated value (e.g., moving average) that recognizes the changes in the actual fair value of pension assets over a period not exceeding five years. Market-related asset value is an average of fair values and is used because fair value may change

significantly over the years, which would cause significant differences in pension expense each period. The valuation method must be used consistently. Market-related values may be assigned to different asset classes.

#### EXAMPLE

A calculated moving average value is to be used in measuring pension plan assets. The actual fair value of plan assets at the end of each of the last six years was 16,000, 20,000, 25,000, 28,000, 32,000, and 26,000. The net gain for the five years is 10,000 (4,000 + 5,000 + 3,000 + 4,000 - 6,000). The five-year net gain is over a five-year period, or 20% (1/5). Therefore, only 20% of the 10,000 net gain, or 2,000, is included in deriving the calculated market-related value of the pension plan assets for the current period.

**Note:** The amount by which the actual fair value differs from the calculated market-related value is the net gain or loss from prior years that still has not been recognized in the calculated market-related value.

**Contributory Plan.** A plan in which employees must contribute their share to the pension and to its cost. The contribution rate is usually specified as a percentage. For example, a pension plan may require employees to contribute 5% of their annual salary while the employer contributes 10% of the salary. In some plans, employees have the option to contribute in order to receive increased benefits. In a noncontributory plan, employees do not contribute to the pension plan. The employer is the only one who funds the plan.

*Measurement Date.* The date in which pension plan assets and liabilities are measured. They should usually be measured at the employer's fiscal year-end.

**Attribution**. The procedure used to assign pension benefits or cost to the years of employee service. The attribution period usually starts when the employee is hired and ends when the employee becomes fully eligible under the plan. Each year of service is usually considered equal in application. However, a benefit formula may be used, attributing more or less benefits to later service years.

*Full Eligibility*. The date the employee achieves complete eligibility for pension benefits. The benefits may be received by either the employee or his or her beneficiaries in the case of death. Full eligibility may be based on reaching a predetermined number of service years, or age, or a combination of service and age.

*Mortality Rate.* The ratio of the number of deaths relative to the number of living persons in a particular group. This is one consideration used by actuaries in determining pension expense and related funding. Actuaries refer to mortality tables, which indicate the death rates by age.

**Annuity Contract**. An irrevocable agreement in which the insurer has the unconditional obligation to pay employees of the employer either specific periodic benefits or a lump-sum payment to another party. The employer pays the insurance company premiums over the life of the contract. In so doing, the employer transfers its risk to the insurer.

## **Defined Contribution Pension Plan**

In a defined contribution plan, the employer and employees make contributions to a plan so as to provide pension benefits to employees when they retire. In this plan, only the employer's contribution is defined, so there is no assurance of the eventual benefits to be paid to retirees.

Under a defined contribution pension plan, pension expense is accrued each year based on services rendered. The amount funded (contributed) equals the pension expense for the period. The entry is to debit pension expense and credit cash. As a result, a deferred charge or deferred credit is not recorded.

In the event that the plan provides for contributions after retirement or termination, the associated expense should be accrued during the service years.

At retirement, the employee will receive pension benefits based on the amounts contributed to his or her account, income earned on investments, and forfeitures of amounts of other participants who leave employment before being vested.

The following should be footnoted:

- Cost recognized for the year.
- Method and basis in computing contributions.
- Description of the terms.
- Categorization of covered employees.
- Discussion of items affecting comparability over the years.

ASC 962-325-05, *Plan Accounting—Defined Contribution Pension Plans: Investments —Other*, discusses the reporting of investment contracts held by defined contribution pension plans.

ASC 715-70-55-4, *Compensation—Retirement Benefits: Defined Contribution Plans*, covers the measurement of excess contributions to a defined contribution plan or employee stock ownership plan.

According to **Accounting Standards Update (ASU)** No. 2010-25 (September 2010), *Plan Accounting—Defined Contribution Pension Plans (ASC 962), Reporting Loans to Participants,* participant loans should be presented as notes receivable and are to be segregated from plant investments and valued at their unpaid principal amount plus any accrued but unpaid interest.

AICPA Accounting Standards Executive Committee (AcSEC) Practice Bulletin No. 12 covers the reporting of separate investment fund option information of defined contribution pension plans.

### **Defined Benefit Pension Plan**

Under a defined benefit plan, pension expense is charged to operations over the time period employees perform services. Under GAAP, attribution of pension costs to periods of employee service for a defined benefit

pension plan is based on the plan's benefit formula. Thus, GAAP follows the traditional accounting practice of looking to the terms of the agreement as a basis for recording an exchange. According to the FASB, the benefits approach better reflects how the costs and liabilities are incurred.

A benefit formula considers the pension benefits employees will receive upon retirement for their employment. The employer's contribution (cash funded) into the plan is based on the anticipated pension benefits employees will receive when they retire. When benefits are paid, plan assets are reduced. A cash balance plan should be considered a defined benefit plan.

In determining amounts, consideration is given to factors such as age, salary, and years of service. The employer has to provide plan contributions so that sufficient assets are accumulated to pay for the benefits when due.

#### **Total Pension Expense**

In a defined benefit plan, pension expense consists of the following components:

- 1) + Service cost.
- 2) + Interest cost on projected benefit obligation.
- 3) + Expected return on pension plan assets.
- 4) -/+ Amortization of actuarial gains or losses.
- 5) -/+ Amortization of any prior service cost or credit (included in "accumulated <u>other</u> <u>comprehensive income"</u>).

Pension expense



#### EXAMPLE

On January 1, 2X12, a company adopts a defined benefit pension plan. The expected return and interest rates are both 10%. The service cost for 2X12 and 2X13 is \$100,000 and \$120,000, respectively. The funding amount for 2X12 and 2X13 is \$80,000 and \$110,000, respectively.

| The entry for 2X12 is:   |               |           |
|--|---------------|-----------|
| Pension expense  | 100,000       |           |
| Cash   |               | 80,000    |
| Pension liability  |               | 20,000    |
| The entry for 2X13 is:   |               |           |
| Pension expense  | 122,000       |           |
| Cash   |               | 110,000   |
| Pension liability  |               | 12,000    |
| Computation:   |               |           |
| Service cost   |               | \$120,000 |
| Interest on projected benefit obligation (10% × \$100,000)           |               | 10,000    |
| Expected return on plan assets (10% × \$80,000)                      |               | (8,000)   |
| Pension expense  |               | \$122,000 |
| At December 31, 2X13:  |               |           |
| Projected benefit obligation (PBO) = \$230,000 (\$100,000 + \$120,00 | 0 + \$10,000) |           |
| Pension plan assets = \$198,000 (\$80,000 + \$110,000 + \$8,000)     |               |           |

Each of these pension elements is discussed in the following paragraphs.

**1)** Service cost. Pension cost assigned for services rendered in the current year is based on the actuarialdetermined *present value* of future payments to be made using a benefit formula. It is charged in the current period. Service cost should take into account benefit changes per the pension agreement, such as cost increases arising from some inflation measure (e.g., Consumer Price Index). In other words, if the benefit formula includes benefits tied to expected future employee salaries, this must be considered in computing service cost for the current year. Future compensation levels should incorporate changes arising from such factors as productivity, promotion, seniority, and additional responsibilities.

**2)** Interest on projected benefit obligation. This is computed by multiplying the interest (settlement discount) rate by the projected benefit obligation (PBO) (discounted present value of employee benefits earned based on future salaries) at the beginning of the year. The interest (settlement) rate is usually based on the company's average borrowing cost. The settlement rate should be reviewed each year; it represents the time value of money. Assumed discount rates should reflect the rates at which benefits can be settled. The interest cost component of net periodic pension expense is defined as the increase in the PBO resulting from the *passage of time*. The PBO is a discounted amount of benefits to be paid. As the time to payment is reduced, the present value increases. In estimating these rates, it is appropriate to consider current prices of annuity contracts that

could be used to settle pension obligations as well as the rates on high-quality fixed investments, whose cash flows match the amount and timing of the anticipated benefit payments. The purpose is to derive a discount rate to measure an amount that, if invested in a high-quality debt portfolio, will generate required future cash flows to pay the pension benefits when due. The interest cost increases pension expense and the PBO.

**3)** Expected return on pension plan assets. Pension plan assets may include bank accounts, stocks, bonds, and real estate. The return on plan assets may be expressed in the form of *expected* (or actual).

**Expected return** = the market-related value (MRV) of pension plan assets at the beginning of the year x Long term rate.

The total expected return reduces pension expense. **Note:** It is possible for the return to be negative, such as in a stock market crash. In such a case, the negative return would increase pension expense.

The expected return is the anticipated increase in plan assets arising from investment activities. The FASB mandates that expected return on plan assets be included as a component of pension expense.

The actual return on pension plan assets equals the difference between the fair value of pension assets at the start and end of the year adjusted for employer contributions and benefit payments to retirees. In other words, the actual return results from realized and holding gains or losses on plan assets plus the periodic income earned (e.g., dividends, interest) on the plan assets. Actual return on plan assets increases the fund balance and reduces the employer's net cost of providing employees' pension benefits.

#### EXAMPLE

The fair values of plan assets at the beginning and end of the year were \$2,800 and \$3,086, respectively. The employer's contribution to the plan during the year was \$290. Benefit payments to retirees were \$320. The actual return is computed as follows:

| Fair value of plan assets—1/1   | \$2,800 |
|---------------------------------|---------|
| Plus: employer contributions    | 290     |
| Plus: actual return             | ?       |
| Less: benefit payments          | (320)   |
| Fair value of plan assets—12/31 | \$3,086 |

Solving for the unknown, the actual return equals \$316.

Alternatively, the following formula may be used to derive the actual return:

| Actual return =  |
|--|
| + Fair value of assets (end of year)                         |
| <ul> <li>fair value of assets (beginning of year)</li> </ul> |
| - employer contributions                                     |
| + benefit payments   |

Actual return = \$3,086 - \$2,800 - \$290 + \$320 = \$316

#### EXAMPLE

The following data apply to a company's defined benefit pension plan for the year:

| Fair market value of plan assets—1/1                        |                | \$400,000 |
|---|----------------|-----------|
| Fair market value of plan assets—12/31                      |                | 570,000   |
| Employer contributions                                      |                | 140,000   |
| Benefits paid   |                | 100,000   |
| The actual return on plan assets equals \$ 130,000, compute | ed as follows: |           |
| Fair market value of plan assets—12/31                      |                | \$570,000 |
| Fair market value of plan assets—1/1                        |                | 400,000   |
| Change in plan assets                                       |                | \$170,000 |
| Adjusted for  |                |           |
| Employer contributions                                      | \$140,000      |           |
| Less: benefits paid   | 100,000        | 40,000    |
| Actual return on plan assets                                |                | \$130,000 |

#### EXAMPLE

Based on the following information, the actual return on pension plan assets will be computed as follows:

| Benefit payments<br>Contribution                       | \$100,000<br>130,000 |                    |
|--|----------------------|--------------------|
| Fair market value of plan assets:                      |                      |                    |
| End of year<br>Beginning of year                       |                      | 600,000<br>400,000 |
| The actual return equals \$170,000, computed as follow | s:                   |                    |
| Change in fair market value of plan assets             |                      | \$200,000          |

Adjustments:

| Employer contribution        | \$130,000 |           |
|------------------------------|-----------|-----------|
| Benefit payments             | 100,000   | 30,000    |
| Actual return on plan assets |           | \$170,000 |

**4) Prior service cost (PSC).** Pension expense is assigned for services performed prior to adopting or modifying a pension plan. The cost associated with granting retroactive benefits increases the projected benefit obligation at the amendment date. Prior service cost arising for an amendment to the plan is accounted for as a change in estimate. The amortization of prior service cost (PSC) should be recognized as a component of pension cost during the future service periods of those employees active at the date of the plan amendment and who are expected to receive benefits under the plan. The cost of retroactive benefits is the increase in the PBO at the date of the amendment and should be amortized by assigning an equal amount to each future period of service of each employee active at the date of the amendment who is expected to receive benefits under the plan. However, to reduce the burden of these allocation computations, any alternative amortization approach (e.g., averaging) that more rapidly reduces the unrecognized prior service cost is acceptable provided it is applied consistently.

A company may grant employees this privilege for one or more reasons, such as enhancing worker morale, reducing turnover rates, improving productivity, and controlling raises.

The amortization of prior service cost may take into account future service years, any change in the projected benefit obligation, the period employees will receive benefits, and any decrement in employees receiving benefits each year. Other comprehensive income is adjusted as a result of amortizing prior service cost.

#### **IFRS Treatment**

Prior service cost is recognized immediately to the extent it is vested upon introduction, or amendment, of a plan. Otherwise, it is expensed on the straight-line basis over the average period to vesting.

A plan modification that retroactively increases benefits increases the projected benefit obligation. The cost of the benefit improvement is recognized as a charge to other comprehensive income at the amendment date. On the other hand, a plan amendment that retroactively reduces benefits decreases the projected benefit obligation. The reduction in benefits is recognized as a credit (prior service credit) to other comprehensive income that is used first to reduce any remaining prior service cost included in accumulated other comprehensive income. Any remaining credit is amortized as a component of pension cost on the same basis as the cost of a benefit increase.

The employer initially records the prior service cost as an adjustment to other comprehensive income. The employer then recognizes the prior service cost as a component of pension expense over the remaining service lives of employees covered by the plan. A years-of-service amortization method would consist of the following steps: (1) the total number of service years to be worked by all participating employees is computed; (2) the prior service cost is divided by the total number of service years to derive a cost per service year (unit cost); (3) the number of service years each year is multiplied by the cost per service year to compute the annual amortization charge. Employers may also use the straight line method of amortization in which prior service cost is amortized over the average remaining service life of employees.

#### EXAMPLE

On January 1, 2X13, a company amends its pension plan and grants \$800,000 of prior service costs to employees. The employees are expected to provide 4,000 service years in the future with 500 service years in the year 2X13. The amortization of prior service cost for the year 2X13 is:

| Cost per service year | =      | prior service cost ÷ total service years = \$800,000 ÷ 4,000 = \$200              |
|-----------------------|--------|---|
| 2X13 amortization     | =<br>= | service years for current year × cost per service year<br>500 × \$200 = \$100,000 |

#### EXAMPLE

A company has five employees who participate in the pension plan. Expected future service years from them at the beginning of 2X12 are as follows:

| Employee | Future Service Years |
|----------|----------------------|
| A        | 3                    |
| В        | 4                    |
| С        | 5                    |
| D        | 6                    |
| E        | 6                    |

On January 1, 2X12, the company amended its pension plan increasing the projected benefit obligation by \$120,000.

Based on the aforementioned information, the cost per service year and the annual amortization of prior service cost can be computed.

| Computation of Service Years |   |   |   |   |   |       |
|------------------------------|---|---|---|---|---|-------|
| Employee                     |   |   |   |   |   |       |
| Year                         | A | В | С | D | Ε | Total |

| 2X12  | 1 | 1        | 1        | 1        | 1        | 5         |
|-------|---|----------|----------|----------|----------|-----------|
| 2X13  | 1 | 1        | 1        | 1        | 1        | 5         |
| 2X14  | 1 | 1        | 1        | 1        | 1        | 5         |
| 2X15  | 1 | 1        | 1        | 1        | 4        |           |
| 2X16  |   |          | 1        | 1        | 1        | 3         |
| 2X17  |   |          | 1        | 1        | 2        |           |
| Total | 3 | <u>4</u> | <u>5</u> | <u>6</u> | <u>6</u> | <u>24</u> |
|       |   |          |          |          |          |           |

Cost per service year = \$120,000 ÷ 24 = \$5,000

| Computation of Annual Prior Service Cost Amortization |                     |              |                     |  |
|---|---------------------|--------------|---------------------|--|
|   |                     | Cost per     |                     |  |
| Year  | Total Service Years | Service Year | Annual Amortization |  |
| 2X12  | 5                   | \$5,000      | \$25,000            |  |
| 2X13  | 5                   | 5,000        | 25,000              |  |
| 2X14  | 5                   | 5,000        | 25,000              |  |
| 2X15  | 4                   | 5,000        | 20,000              |  |
| 2X16  | 3                   | 5,000        | 15,000              |  |
| 2X17  | 2                   | 5,000        | 10,000              |  |
| Total   |                     |              | <u>\$120,000</u>    |  |

#### EXAMPLE

XYZ Company elects to amortize prior service cost using the years-of-service method. There are 600 workers. Prior service cost is \$226,500. The grouping of employees based on expected retirement years are:

|          |                   | Expected Retirement on |
|----------|-------------------|------------------------|
| Grouping | Number of Workers | December 31            |
| Н        | 150               | 2X09                   |
| I        | 120               | 2X10                   |
| J        | 200               | 2X11                   |
| К        | 130               | 2X12                   |
|          | 600               |                        |

The calculation of the service hours per year and the total service years follows:

| Service Years |      |     |     |     |     |       |
|---------------|------|-----|-----|-----|-----|-------|
|               | Year | 1   | 2   | 3   | 4   | Total |
|               | 2X09 | 150 | 120 | 200 | 130 | 600   |
|               | 2X10 |     | 120 | 200 | 130 | 450   |

| 2X11  |            |            | 200        | 130        | 330          |
|-------|------------|------------|------------|------------|--------------|
| 2X12  |            |            |            | 130        | 130          |
| Total | <u>150</u> | <u>240</u> | <u>600</u> | <u>520</u> | <u>1,510</u> |

Because prior service cost is \$160,000 and there is a total of 1,510 service years for all years, the cost per service year is \$150 (\$226,500 ?1,510 service years). The annual amount of amortization based on a \$150 cost per service year is computed below:

|       | Total Service |   | Cost per     |   | Annual           |
|-------|---------------|---|--------------|---|------------------|
| Year  | Years         | × | Service Year | = | Amortization     |
| 2X09  | 600           |   | \$150        |   | \$ 90,000        |
| 2X10  | 450           |   | 150          |   | 67,500           |
| 2X11  | 330           |   | 150          |   | 49,500           |
| 2X12  | 130           |   | 150          |   | 19,500           |
| Total | <u>1,510</u>  |   |              |   | <u>\$116,500</u> |
|       |               |   |              |   |                  |

#### EXAMPLE

On January 1, 2X13, XYZ adopted a pension plan giving a retroactive pension benefit for services rendered in the two years before adoption. The prior service cost amounted to \$500,000. It is to be amortized over 10 years. Therefore, the amortization expense on prior service cost for 2X13 will be \$50,000.

#### EXAMPLE

A company reported the following on January 1, 2X13:

| Projected benefit obligation—1/1/2X13     | \$800,000 |
|---|-----------|
| Fair market value of plan assets—1/1/2X13 | 600,000   |

The unamortized prior service cost on January 1, 2X13 equals:

| Projected benefit obligation-1/1     | \$800,000 |
|--------------------------------------|-----------|
| Fair market value of plan assets—1/1 | 600,000   |
| Unamortized prior service cost—1/1   | \$200,000 |

If the amortization period is 20 years, the amortization expense on prior service cost for 2X13 would be \$10,000 (\$200,000/20 years), resulting in unamortized prior service cost on December 31, 2X13 of \$190,000 (\$200,000 - 10,000).

#### EXAMPLE

ABC Company modifies its pension formula from 3% to 4% of the last four years of pay multiplied by the service years on January 1, 2X13. This causes the projected benefit obligation to increase by \$400,000. It is expected that employees will receive benefits over the next 10 years.

Total future service years equal:

 $n(n+1) \times P$ 

where:

*n* = service years to be made

p = annual population decrease

 $\frac{10(10+1) \times 9}{2} = 495$ 

Amortization expense on prior service cost for 2X131 equals:

\$400,000(10)(9) 495 = \$72,727

**5)** Actuarial gains or losses. Actuarial gains or losses are the difference between actual experience and estimates. For example, an actuarial loss would arise if the actual interest rate earned was 6% when the anticipated interest rate was 8%. Actuarial gains or losses arise from the difference between the expected versus actual projected benefit obligation and/or fair value of plan assets at year-end. Actuarial gains or losses include unrealized and realized amounts. A change in actuarial assumptions will also result in actuarial gains or losses. Gains and losses that are not recognized immediately as a component of pension expense shall be recognized as increases or decreases in other comprehensive income as they arise.

Actuarial gains or losses are deferred and amortized as an adjustment to pension expense over future years. Recognition of actuarial gains or losses is based on the *corridor* method. This method lowers the amount of gain or loss to be reflected as an adjustment of pension cost. Under the corridor (materiality threshold) approach, recognition is given to certain gains or losses exceeding 10% of the greater of the beginning-of-year balances of the projected benefit obligation or the market-related value (MRV) of plan assets. The excess over the corridor (test) is amortized over the average remaining service period for active employees expected to receive benefits in the plan. The amortization of actuarial losses increases pension expense; the amortization of actuarial gains reduces pension expense. If the balance of the unrecognized net gain or loss is below the corridor, no amortization occurs. The unrecognized net gain or loss balance is carried forward as is. Exhibit 3 outlines the corridor method.



#### Exhibit 3: The Corridor Method

#### EXAMPLE

At the beginning of the year, the projected benefit obligation was \$250,000 and the market-related value of plan assets was \$325,000. The corridor equals \$32,500 ( $10\% \times $325,000$ ). Actuarial gain or loss is not recognized unless it exceeds \$32,500. The excess over \$32,500 (corridor) is amortized. Thus, if the actuarial gain were \$40,000, \$7,500 (\$40,000 - \$32,500) would be amortized as a reduction to pension expense over the average remaining service period for active employees in the plan. If the actuarial gain were \$30,000, there would be no amortization because the corridor (\$32,500) had not been exceeded.

However, actuarial losses or gains applicable to a single event unrelated to the pension plan and not in the ordinary course of business are immediately recognized in the current year's income statement. This may arise in the case of disposing of a business segment or closing a plant.

If the employer wishes to use an approach other than the minimum amortization of unrecognized gains and losses discussed previously, it can use an alternative amortization method, as long as it is logical, consistently applied to both gains and losses, disclosed, and reduces the unamortized balance by an amount more than that which would arise from the minimum amortization method.

ASC 715-30-35-90, *Compensation—Retirement Benefits: Defined Benefit Plans— Pension*, provides the accounting for pension benefits paid by employers after insurance companies fail to provide annuity benefits.

#### EXAMPLE

The following information is presented:

Service cost

\$6,000

| Return on plan assets                    | \$ 700         |
|--|----------------|
| Interest on projected benefit obligation | \$1,000        |
| Amortization of net loss                 | \$ 200         |
| Amortization of prior service cost       | \$2,000        |
| Pension expense equals:                  |                |
| Service cost                             | \$6,000        |
| Interest on projected benefit obligation | \$1,000        |
| Return on plan assets                    | \$ (700)       |
| Amortization of net loss                 | \$ 200         |
| Amortization of prior service cost       | \$2,000        |
| Pension expense                          | <u>\$2,000</u> |

**Note:** If there was, in this example, an amortization of net gain (instead of amortization of net loss), then it would be a deduction.

#### EXAMPLE

The following information is presented of Harris Company's pension plan:

|                                  | 1/1/2X13 | 12/31/2X13 |
|----------------------------------|----------|------------|
| Projected benefit obligation     | \$1,000  | \$1,040    |
| Fair market value of plan assets | 400      | 565        |
| Accumulated OCI (G/L)—net gain   | -0-      | 200        |

On January 1, 2X13, the Pension Liability is \$600 (\$1,000-\$400).

Other information follows:

| Service cost for 2X13                         | \$140 |
|---|-------|
| Amortization of prior service cost for 2X13   | \$ 60 |
| Contributions for 2X13                        | \$125 |
| Return rate on plan assets                    | 10%   |
| Interest rate on projected benefit obligation | 10%   |

On January 1, 2X13, accumulated other comprehensive income (prior service cost) had a balance of \$600. No benefit payments to retirees were made in 2X13.

Pension expense equals:

| Service cost   | \$140 |
|--|-------|
| Interest on projected benefit obligation (10% × \$1,000) | 100   |

| Expected return on plan assets (10% × \$400)  | (40)                               |
|---|------------------------------------|
| Amortization of prior service cost  | 60                                 |
| Pension expense   | \$260                              |
| The journal entry to record pension expense and the employer's contribut follow:  | ion to the plan in 2X1             |
| Pension expense 2   | 60                                 |
| Pension asset 1   | .25                                |
| Other comprehensive income (prior service cost)   | 60                                 |
| Other comprehensive income (gain/loss)  | 200                                |
| Cash  | 125                                |
| The December 31, 2X13, balance sheet will show a balance in pension liabilit follows:<br>Projected benefit obligation—December 31, 2X13   | \$1,040                            |
| Less: Plan assets—December 31, 2X13   | 565                                |
| Plan liability  | \$ 475                             |
| The December 31, 2X13, presentation of stockholders' equity in the balance s<br>Stockholders' equity:<br>Accumulated other comprehensive income (prior service cost) (\$600-\$60)<br>Accumulated other comprehensive income (gain/loss) | sheet will show:<br>\$540<br>\$200 |
| ccumulated other comprehensive income (gain/loss)   | \$200                              |
|   | ·                                  |

## **Actuarial Gains and Losses/Prior Service Costs**

The gains and losses and prior service costs or credits that occur during the period are recognized as a component of other comprehensive income, net of tax, not as elements of net periodic benefit cost, as per either ASC 715-10-05, *Compensation — Retirement Benefits: Overall*. Amounts recognized in accumulated other comprehensive income, including the gains and losses and prior service costs or credits, are adjusted, as they are later recognized as components of net periodic benefit cost in accordance with the recognition and amortization provisions of ASC 715-10-05, *Compensation—Retirement Benefits: Overall*.

| EXAMPLE |
|---------|
|---------|

Paul Company provides the following information for the year 2X13:

| Net income for 2X13               | \$150,000 |
|-----------------------------------|-----------|
| Actuarial liability loss for 2X13 | 24,000    |

| Prior service cost adjustment to provide additional benefits in December |        |
|--|--------|
| 2X13   | 6,000  |
| Accumulated other comprehensive income—1/1/2X13                          | 48,000 |

Looking more closely at prior service cost or credits, assume that none of the accumulated other comprehensive income—January 1, 2X13, should be amortized in 2X13. Therefore, accumulated other comprehensive income—January 1, 2X13, in this example, is not adjusted for actuarial gains and losses and prior service cost amortization that would change pension expense. However, these items will be amortized to pension expense in later years.

Both the actuarial liability loss and the prior service cost adjustment reduce the funded status of the plan on the balance sheet. However, neither the actuarial liability loss nor the prior service cost adjustment impacts pension expense in 2X13. However, in later years, these items will affect pension expense through amortization.

The computation of other comprehensive income for 2X13 equals:

Comprehensive income

| Actuarial liability loss                       | \$ 24,000 |
|--|-----------|
| Prior service cost benefit adjustment          | 6,000     |
| Other comprehensive loss                       | \$ 30,000 |
| Comprehensive income for 2X13 is presented as: |           |
| Net income                                     | \$150,000 |
| Other comprehensive loss                       | (30,000)  |

It is not a requirement to present earnings per share for comprehensive income.

The comprehensive income statement for the year ended December 31, 2X13, follows:

| Net income               |          | \$150,000        |
|--------------------------|----------|------------------|
| Other comprehensive loss |          |                  |
| Actuarial liability loss | \$24,000 |                  |
| Prior service cost       | 6,000    | 30,000           |
| Comprehensive loss       |          | <u>\$120,000</u> |

The computation of accumulated other comprehensive income to be presented in the stockholders' equity section of the balance sheet on December 31, 2X13, follows:

| Accumulated other comprehensive income-1/1/2X13   | \$ 48,000        |
|---|------------------|
| Other comprehensive loss                          | 30,000           |
| Accumulated other comprehensive income-12/31/2X13 | <u>\$ 18,000</u> |

\$120,000

Assume a company amends its defined benefit plan and gives additional service years to workers after plan initiation. This will increase the projected benefit obligation. ASC 715 requires that the prior service cost arising in the amendment year (which increases the projected benefit obligation) be reflected by an offsetting debit to other comprehensive income. This recognition is consistent with that applied to actuarial gains and losses.

#### EXAMPLE

Tudor Company presents the following data for the year 2X13:

| Net income                                | \$420,000 |
|---|-----------|
| Actuarial liability loss for 2X13         | 126,000   |
| Prior service cost adjustment during 2X13 | 31,500    |
| Accumulated other comprehensive income    | 364,000   |

The actuarial liability loss and the prior service cost adjustment will reduce the funded status of the plan on the balance sheet because the projected benefit obligation increases. However, the actuarial liability loss and the prior service cost adjustment will not impact pension expense in 2X13. In later years, these two items usually affect pension expense through amortization.

Other comprehensive income for 2X13 equals:

| Actuarial liability loss      | \$(126,000)         |
|-------------------------------|---------------------|
| Prior service cost adjustment | (31.500)            |
| Other comprehensive loss      | <u>\$(157,500</u> ) |

The computation of comprehensive income for 2X13 is:

| Net income               | \$420,000        |
|--------------------------|------------------|
| Other comprehensive loss | (157,500)        |
| Comprehensive income     | <u>\$262,500</u> |

The computation of accumulated other comprehensive income to be presented in the stockholders' equity section of the balance sheet at December 31, 2X13, follows:

| Accumulated other comprehensive income – 1/1/2X13   | \$364,000        |
|---|------------------|
| Other comprehensive loss                            | (157,500)        |
| Accumulated other comprehensive income — 12/31/2X13 | <u>\$206,500</u> |

**Note:** Assumed in this example is that accumulated other comprehensive income at January 1, 2X13, is not adjusted for any actuarial gains or losses and any prior service cost that would change pension expense. However, these items will be amortized into pension expense in future years.

## **Gain or Loss**

Companies may encounter uncontrollable variability in pension expense due to (1) sudden and unanticipated changes in the fair market value of plan assets and (2) changes to actuarial assumptions affecting the projected benefit obligation (which can take place when actuaries change assumptions or when actual experience deviates from expected experience). The gain or loss is comprised of two elements: (1) the difference between actual return and expected return on plan assets and (2) the amortization of the net gain or loss from prior years. *Smoothing techniques* may be used to reduce the fluctuation in pension expense.

## **Smoothing Unexpected Gains and Losses on Plan Assets**

Actual return on plan assets reduces pension expense. Because a very significant return rate can substantially impact pension expense, actuaries use an expected return rate as a component of pension expense. The expected return equals the expected rate of return multiplied by the market-related value of plan assets at the beginning of the period. Unexpected gain or loss is the difference between the expected return and actual return. This simply refers to asset gains and losses. If actual return is more (less) than expected return, there is an asset gain (loss). The employer records asset gains and losses in other comprehensive income, combining them with gains and losses accumulated in prior years. (This is treated in a similar way as prior service cost.) An unexpected asset loss is debited to other comprehensive income and credited to pension expense. An unexpected asset gain is debited to pension expense and credited to other comprehensive income.

## **Smoothing Unexpected Gains and Losses on the Pension Liability**

Actuarial assumptions are used to estimate the projected benefit obligation (PBO). Any change in actuarial assumptions impacts the amount of the PBO. Actual experience is usually different from actuarial predictions. Liability gains and losses are the unexpected gains and losses arising from changes in the PBO. An unexpected reduction in the PBO is a liability gain, whereas an unexpected increase in the PBO is a liability loss. Liability gains and losses are reported in other comprehensive income.

**Note:** Liability gains and losses as well as asset gains and losses are shown in the same other comprehensive income account. The employer accumulates the asset and liability gains and losses over the years that are not amortized in accumulated other comprehensive income, which is shown in the stockholders' equity section of the balance sheet.

An asset gain or loss occurs on plan assets when the expected return differs from the actual return.

Asset gain = actual return > expected return Asset loss = actual return < expected return

A liability gain or loss arises when actuarial assumptions differ from actual experiences applicable to the computation of the projected benefit obligation.

Liability gain = unexpected decrease in the PBO Liability loss = unexpected increase in the PBO

Asset gains and losses are combined with liability gains and losses to derive net gain or loss. Net gain or loss is the change in the fair market value of plan assets and the amount of change in the projected benefit obligation.

## **Review Questions – Section 1**

1. An employee's right to obtain pension benefits regardless of whether (s)he remains employed is the

- A. Prior service cost (PSC).
- B. Defined benefit.
- C. Vested interest.
- D. Minimum liability.

2. GAAP defines the projected benefit obligation (PBO) as the

- A. Present value of benefits accrued to date based on future salary levels.
- B. Present value of benefits accrued to date based on current salary levels.
- C. Increase in retroactive benefits at the date of the amendment of the plan.
- D. Amount of the adjustment necessary to reflect the difference between actual and estimated actuarial returns.

3. Visor Co. maintains a defined benefit pension plan for its employees. The service cost component of Visor's net periodic pension cost is measured using the

- A. Unfunded accumulated benefit obligation.
- B. Unfunded vested benefit obligation.
- C. Projected benefit obligation (PBO).
- D. Expected return on plan assets.

4. Under GAAP, attribution of pension costs to periods of employee service for a defined benefit pension plan

- A. Is based on the plan's benefit formula.
- B. May be based on any acceptable actuarial cost method.
- C. Is determined as a level amount or as a level percentage of compensation.
- D. Should be based on a cost approach.

5. Joel Co. sponsors a defined benefit pension plan. The discount rate used by Joel to calculate the projected benefit obligation is determined by the: I) Expected Return on Plan Assets; or II) Actual Return on Plan Assets

A. Both I and II.

- B. Neither I nor II
- C. I, but not II
- D. II, but not I

6. On January 2, Year 1, Loch Co. established a noncontributory defined-benefit pension plan covering all employees and contributed \$400,000 to the plan. At December 31, Year 1, Loch determined that the Year 1 service and interest costs on the plan were \$720,000. The expected and the actual rate of return on plan assets for Year 1 was 10%. Loch's pension expense has no other components. What amount should Loch report in its December 31, Year 1, balance sheet as liability for pension benefits?

- A. \$280,000
- B. \$320,000
- C. \$360,000
- D. \$720,000

7. The following information pertains to Seda Co.'s pension plan: Actuarial estimate of projected + benefit obligation at 1/1/2X12 =\$72,000; Assumed discount rate =10%; Service cost for 2X12 = \$18,000; Pension benefits paid during 2X12 = \$15,000. If no change in actuarial estimates occurred during 2X12, what was Seda's Projected benefit obligation (PBO) at December 31, 2X12?

- A. \$67,800
- B. \$75,000
- C. \$79,200
- D. \$82,200

8. In computing pension expense, what amount should Gali use as actual return on plan assets if the following information pertains to Gali Co.'s defined benefit pension plan for Year 1: Fair value of plan assets, beginning of year = \$350,000; Fair value of plan assets, end of year = \$525,000; Employer contributions = \$110,000; Benefits paid = \$85,000.

- A. \$65,000
- B. \$150,000
- C. \$175,000
- D. \$260,000

9. Jan Corp. amended its defined benefit pension plan, granting a total credit of \$100,000 to four employees for services rendered prior to the plan's adoption. What is the amount of prior service cost amortization in the first

year if the employees, A, B, C, and D, are expected to retire from the company as follows: "A" will retire after 3 years. "B" and "C" will retire after 5 years. "D" will retire after 7 years.

A. \$0

- B. \$5,000
- C. \$20,000
- D. \$25,000

## **Corridor Amortization**

Asset gains and losses and liability gains and losses can offset each other. The FASB has adopted the corridor method to amortize the accumulated other comprehensive income account balance when it becomes too large in amount. The FASB set a limit of 10% of the greater of the beginning balances of the market-related value of plan assets or the projected benefit obligation. Above the 10% limit, the accumulated other comprehensive income account related to gains and losses is too large and must be amortized.

#### EXAMPLE

| Projected benefit obligation |            | \$180,000 |
|------------------------------|------------|-----------|
| Market-related asset value   |            | \$150,000 |
| Corridor = 10% × \$180,000   | = \$18,000 |           |

Any amount exceeding \$18,000 would be amortized; so if the accumulated other comprehensive income account balance was \$25,000, the amount to be amortized would be \$7,000 (\$25,000-\$18,000). However, if the balance of the accumulated net gain or loss account remains within the upper and lower limits of the corridor, no amortization is made. Thus, if the accumulated other comprehensive income account had a balance of \$18,000 or below, no amortization is required.

If amortization is required, the minimum amortization is the excess (\$7,000) divided by the average remaining service years of active employees that are to receive benefits. Assuming a service life of 10 years, the amortization for the year would be \$700 ( $$7,000 \div 10$  years).

The amortization of a loss increases pension expense, whereas the amortization of a gain reduces pension expense.

**Note:** A company can use any amortization method for gains and losses provided the gain or loss is greater than the minimum amount.

An employer can only include the amortization of net gain or loss as a component of pension expense if at the beginning of the year, the net gain or loss in accumulated other comprehensive income exceeds the corridor. The following example illustrates the amortization of net gains and losses.

#### EXAMPLE

In the years 2X12 and 2X13, a company has actuarial losses of \$1,200 and \$900, respectively, in other comprehensive income. The average remaining service life is 20 years. The beginning market-related asset values and projected benefit obligation for 2X12, 2X13, and 2X14 are:

|                              | 2X12    | 2X13    | 2X14    |
|------------------------------|---------|---------|---------|
| Market-related asset value   | \$7,800 | \$8,400 | \$8,100 |
| Projected benefit obligation | 6,300   | 7,800   | 8,700   |

The amortization schedule (Schedule 1) for the net gain or loss follows:

| Schedule 1 |             |                  |          |                              |                     |
|------------|-------------|------------------|----------|------------------------------|---------------------|
|            |             |                  |          | Accumulated OCI <sup>*</sup> | Amortization of     |
| Year       | Plan Assets | PBO              | Corridor | (Gain/Loss)—1/1              | Loss                |
| 2X12       | \$7,800     | \$6 <i>,</i> 800 | \$78     | 0 \$0                        | \$ 0                |
| 2X13       | 8,400       | 7,800            | 84       | 0 1,200                      | 18 <sup>(1)</sup>   |
| 2X14       | 8,100       | 8,700            | 87       | 0 2,082 <sup>(2)</sup>       | 60.6 <sup>(2)</sup> |

\* OCI = Other Comprehensive Income

<sup>(1)</sup> \$1,200 - \$840 = \$360; \$360/20 years = \$18

 $^{(2)}$  \$1,200 - \$18 + \$900 = \$2,082; \$2,082 - \$870 = \$1,212; \$1,212 ÷ 20 years = \$60.6

**Note:** Employers determine the amortized net gain or loss by amortizing the accumulated other comprehensive income account related to net gain or loss at the beginning of the year subject to the corridor limitation. In other words, if the accumulated gain or loss exceeds the corridor, these net gains and losses are subject to amortization.

When the current year unexpected gain or loss is combined with the amortized net gain or loss, the current year gain or loss can be determined, resulting in the following:

- Current year unexpected gain or loss (current year actual return less current year expected return)
- Plus: Current year amortized net gain or loss (accumulated other comprehensive income (G/L) less corridor = Balance; Balance divided by average remaining service years)
- D Total current year gain or loss

#### EXAMPLE

A company has a pension plan for its employees. On January 1, 2X13, the following information was presented:

| Accumulated other comprehensive loss (prior service cost) | \$37,500 |
|---|----------|
| Fair market value of plan assets                          | 50,000   |
| Projected benefit obligation                              | 87,500   |

The average remaining service period for employees is 10 years. For the year 2X13, service cost was \$13,000, actual return on plan assets was \$2,750, and contributions were \$16,250. No benefit payments were paid. On December 31, 2X13, the projected benefit obligation was \$113,000 and the fair market value of plan assets was \$69,000. The return rate on plan assets and the interest (settlement) rate on the projected benefit obligation were both 10%.

Pension expense for 2X13 equals:

| Service cost   | \$13,000  |
|--|-----------|
| Interest on projected benefit obligation (10% × \$87,500)          | 8,750     |
| Actual return on plan assets                                       | (2,750)   |
| Unexpected loss on plan assets                                     | (2,250)*  |
| Amortization of prior service cost (\$37,500/10 years)             | 3,750     |
| Pension expense  | \$ 20,500 |
| * Unexpected loss on plan assets = expected return - actual return |           |

= \$5,000 - \$2,750 = \$2,250

| Expected return = rate of return × plan assets (beginr  | ning of year)     |           |
|---|-------------------|-----------|
| 10% ×\$50,000 = \$5,000   |                   |           |
| The journal entry for 2X13 is:  |                   |           |
| Pension expense 2   | 0,500             |           |
| Other comprehensive income (gain/loss) 6  | ,000**            |           |
| Cash  |                   | 16,250    |
| Pension liability   |                   | 6,500     |
| Other comprehensive income (prior service cost)   |                   | 3,750     |
| Fair market value of plan assets—12/31/2X13<br>Less: Fair market value of plan assets—<br>1/1/2X13<br>Expected return | \$50,000<br>5,000 | \$69,000  |
| Contributions   | 16,250            | 71,250    |
| Asset loss  |                   | \$ 2,250  |
| Liability loss:   |                   |           |
| PBO—12/31/2X13  |                   | \$113,000 |
| Less: PBO—1/1/2X13  | \$87,500          |           |
| Interest  | 8,750             |           |
| Service cost  | 13,000            | 109,250   |

#### <u>\$ 3,750</u>

Liability loss

Other comprehensive income (gain/loss):

| Asset loss             | \$2,250        |
|------------------------|----------------|
| Liability loss         | 3,750          |
| Net loss at 12/31/2X13 | <u>\$6,000</u> |

The \$6,000 net loss in the accumulated other comprehensive income (gain/loss) account becomes the beginning balance in 2X13.

The corridor at January 1, 2X14, is computed below:

Corridor = 10% of the greater of PBO-12/31/2X13 of \$113,000 or fair market value of plan assets-12/31/2X13 of \$69,000.

Corridor = 10% × \$113,000 = \$<u>11,300</u>

Because the corridor (\$11,300) exceeds the accumulated other comprehensive income (gain/loss) account of \$6,000, no gain or loss will be amortized in the year 2X14. **Note:** No amortization occurs in the year 2X13 because no balance existed in the accumulated other comprehensive income (gain/loss) account on January 1, 2X13.

### **Pension Plan Benefit Formula**

When a pension plan benefit formula assigns all or a disproportionate share of total pension benefits to future years, the employee's total projected benefit is computed and used as the basis to assign total pension plan benefits. In this case, it is presumed that the employee's total projected benefit will accumulate proportionately based on the ratio of completed service years to date to the total completed service years ending when the benefit is fully vested.

Some benefit formulas are:

- □ *Career-average-pay formula*. This formula bases pension benefits on the worker's salary for his or her working career with the employer.
- □ *Final-pay formula.* Pension benefits are based on the employee's salary over a stipulated time period close to the retirement date or are based on the period of time in which the worker earns the most.
- Flat-benefit formula. Benefits are a constant dollar amount per year of service. An example is a retirement benefit of \$30 of biweekly retirement income for each service year.

### **Plan Assets**

Pension plan assets are typically maintained in a trust account. It is unusual for an employer to withdraw plan assets from the trust fund. However, a withdrawal may occur if the value of plan assets exceeds the pension obligation when the plan is ended. The plan contract may allow for employer withdrawal in this case, as long as all pension obligations have been met by the employer. Pension plan assets do not include those that are unrestricted for purposes other than paying pension benefits or those that are not segregated in a pension trust fund. Plan assets are increased from income thereon, such as capital gains, interest, and dividends. Plan assets are reduced by capital losses, administrative costs, and benefit payments to retirees.

Plan assets used to operate the pension plan are recorded at book value. These assets include office building, office equipment, and furniture and fixtures.

Pension plan assets held as investments so as to have sufficient funds to pay pension benefits to retirees are recorded at their fair market value.

Pension plan assets are recorded on the books of the pension plan. The employer keeps only worksheet records to track the cost and fair market value of those assets. Fair value of plan assets is measured in the following preferential order: market price, selling price of comparable investments, and present value of cash flows. Fair value is the price negotiated between a willing buyer and seller. It is not based on liquidation value.

Fair market value of plan assets at the end of the year equals the fair market value of plan assets at the beginning of the year plus employer contributions plus actual return on plan assets less benefit payments.

#### EXAMPLE

A company reports the following information regarding pension plan assets:

| Fair market value of plan assets—1/1 | \$700,000 |
|--------------------------------------|-----------|
| Employer contributions               | 100,000   |
| Actual return on plan assets         | 50,000    |
| Benefit payments to retirees         | 40,000    |

The fair market value of plan assets on December 31 equals \$810,000, computed as follows:

| Fair market value of plan assets—1/1   | \$700,000 |
|--|-----------|
| Employer contributions                 | 100,000   |
| Actual return                          | 50,000    |
| Benefit payments                       | (40,000)  |
| Fair market value of plan assets—12/31 | \$810,000 |
# **Underfunding or Overfunding**

Pension expense will in most cases not equal the amount of cash funded into the plan by the employer. If pension expense is more than the cash funded (underfunded), a pension liability arises. On the other hand, if pension expense is less than the cash funded (over-funded), a pension asset arises.

The reporting of the funded position of the plan in the balance sheet arises because actuarial gains and losses and prior service costs are now recognized in other comprehensive income. Actuarial gains and losses and prior service costs will be reflected in the projected benefit obligation and plan assets, with corresponding entries in other comprehensive income. However, there will be no or little impact on pension expense because the amortization provisions for actuarial gains and losses and prior service costs remain intact as that required under ASC 962-10-05. In addition, the computation of other components of pension expense (e.g., service cost, interest on the projected benefit obligation) still conforms to the dictates of ASC 962-10-05.

The change in the projected benefit obligation equals:

Projected benefit obligation—beginning of year Plus: Service cost Plus: Interest cost Plus: Amendments (prior service cost) Plus: Actuarial loss Minus: Benefits paid Projected benefit obligation—end of year

An employer must recognize overfunded or underfunded status of a single-employer defined benefit postretirement plan in the balance sheet instead of the footnotes (which was previously done). Therefore, a reconciliation of funded status in the footnotes is eliminated. In addition, the pronouncement requires an employer to recognize all transactions and events impacting the overfunded or underfunded status of a defined benefit postretirement plan in comprehensive income in the year they take place. The employer must measure the funded status (assets and liabilities) of a plan at its fiscal year-end date used for financial reporting. However, the following two exceptions exist:

- 1. The plan is sponsored by a subsidiary that is consolidated using a fiscal year different from its parent, as permitted under ASC 810-10-45-10, *Consolidation: Overall*.
- 2. The sponsor of the plan is an investee accounted for using the equity method, using financial statements of the investee for a fiscal year different from the investor.

In the above two situations, the employer should measure the subsidiary's plan assets and benefit obligations as of the date used to consolidate the subsidiary's balance sheet and shall measure the investee's plan assets and benefit obligations as of the date of the investee's financial statements used to apply the equity method.

With regard to the net funded status of the defined-benefit pension plan, the employer is required to recognize, on its statement of financial position, the full underfunded or overfunded amount.

There should be an aggregation of the statuses of all overfunded plans and the amount should be recognized as an asset. The excess of the fair market value of plan assets over the projected benefit obligation is shown as a noncurrent asset. (**Note:** No part of pension assets is shown as a current asset.) The reasoning for the noncurrent classification is that the pension plan assets are restricted. Specifically, pension assets are used to fund the projected benefit obligation and, as a result, the noncurrent classification applies. There should be an aggregation of the statuses of all underfunded plans and the amount should be recorded as a liability. The liability for an underfunded plan may be classified as a current liability, noncurrent liability, or a combination of both. The current portion is the amount by which the actuarial present value of benefits included in the benefit obligation payable within the year or normal operating cycle of the business, if longer, exceeds the fair market value of plan assets.

All overfunded plans should be combined and presented as a pension plan asset; and all underfunded plans should be combined and presented as a pension plan liability. **Note:** It is prohibited to combine all plans and present a net amount as a single net asset or net liability.

### EXAMPLE

| Pension expense   | 800,000 |         |
|-------------------|---------|---------|
| Cash              |         | 700,000 |
| Pension liability |         | 100,000 |
| Pension expense   | 800,000 |         |
| Pension asset     | 100,000 |         |
| Cash              |         | 900,000 |

### EXAMPLE

Daren Company has a projected benefit obligation of \$600,000 and a fair market value of plan assets of \$450,000. Thus, the pension plan is underfunded by \$150,000 and must report a pension liability of \$150,000.

#### EXAMPLE

Aaron Company has a fair market value of plan assets of \$500,000 and a projected benefit obligation of \$420,000. Therefore, the pension plan is overfunded by \$80,000 and must report a pension asset of \$80,000.

### EXAMPLE

|      | Fair Value of Plan | Projected Benefit |                         |
|------|--------------------|-------------------|-------------------------|
| Plan | Assets             | Obligation        | Pension Asset/Liability |
| U    | \$600,000          | \$500,000         | \$100,000 Asset         |
| V    | 700,000            | 740,000           | 40,000 Liability        |
| W    | 200,000            | 170,000           | 30,000 Asset            |
| х    | 900,000            | 980,000           | 80,000 Liability        |

Jason Company has four pension plans as follows:

Plan assets are reported as \$130,000, whereas pension liabilities are separately reported as \$120,000.

#### EXAMPLE

The following data relate to a company's defined benefit pension plan:

| Pension asset—1/1                  | \$ 4,000 |
|------------------------------------|----------|
| Service cost                       | 22,000   |
| Interest cost                      | 30,000   |
| Actual return on plan assets       | 25,000   |
| Amortization of prior service cost | 43,000   |
| Employer contribution              | 37,000   |

On December 31 the pension liability equals \$29,000, computed as follows:

Pension expense:

| Service cost                       | \$22,000 |                 |
|------------------------------------|----------|-----------------|
| Interest cost                      | 30,000   |                 |
| Actual return on plan assets       | (25,000) |                 |
| Amortization of prior service cost | 43,000   | \$70,000        |
| Less: pension asset—1/1            | \$ 4,000 |                 |
| Employer contributions             | 37,000   | (41,000)        |
| Pension liability—12/31            |          | <u>\$29,000</u> |

### EXAMPLE

The following data apply to a company's defined benefit pension plan:

| Pension asset—beginning of year          | \$ 5 <i>,</i> 000 |
|--|-------------------|
| Employer contribution                    | 60,000            |
| Service cost                             | 40,000            |
| Interest on projected benefit obligation | 25,000            |
| Actual return on plan assets             | 30,000            |
| Amortization of prior service costs      | 50,000            |

At December 31, the amount to be reported as pension liability is computed as follows:

| Pension       | expense         | (\$40,000 | + | \$25,000 | -       |          |
|---------------|-----------------|-----------|---|----------|---------|----------|
| \$30,000 + \$ | \$50,000)       |           |   |          |         | \$85,000 |
| Less: pensi   | on asset—1/1    |           |   |          | \$5,000 |          |
| Employe       | er contribution |           |   |          | 60,000  | 65,000   |
| Pension lia   | bility—12/31    |           |   |          |         | \$20,000 |
|               |                 |           |   |          |         |          |

#### **Retirement Benefit**

A retirement benefit may be determined by considering such factors as salary and service years.

#### EXAMPLE

Mr. Paul has eight years before retirement. The expected salary at retirement is \$60,000. The pension benefit is 4% of final salary for each service year payable at retirement. The retirement benefit is calculated as:

| Final annual salary | \$60,000 |
|---------------------|----------|
| × Formula rate      | ×4%      |
|                     | \$2,400  |
| ×Service years      | ×8       |
| Retirement benefit  | \$19,200 |
|                     |          |

#### EXAMPLE

Coleman Company has a defined benefit plan for its 1,000 employees. On January 1, 2X13, the fair market value of pension plan assets is \$500,000, and the projected benefit obligation is \$650,000. It is expected that 10 workers eligible for pension benefits will leave each year over the next 10 years. Service cost for 2X13 is \$90,000. On December 31, 2X13, the projected benefit obligation is \$680,000, and the fair market value of pension plan assets is \$510,000. The return on plan assets is

9% and the interest rate on debt is 10%. There are no actuarial gains or losses for the year. Cash funded to the trustee for the year is \$120,000.

Pension expense equals:

| Service cost   | \$ 90,000 |
|--|-----------|
| Interest on projected benefit obligation (10% × \$650,000) | 65,000    |
| Return on plan assets (9% × \$500,000)                     | (45,000)  |
| Amortization of actuarial gains or losses                  | -         |
| Amortization of prior service cost                         | 27,273    |
| Pension expense  | \$137,273 |

Calculation of the amortization of prior service cost follows:

| Projected benefit obligation-1/1            | \$650,000 |
|---|-----------|
| Less: Fair value of pension plan assets—1/1 | 500,000   |
| Initial net obligation—1/1                  | 150,000   |

Amortization = \$150,000/5.5 years = \$27,273

$$\frac{n(n+1) P}{2} = \frac{10(10+1) \times 10}{2} = 55 \times 10 = 550$$

550/100 = 5.5 years

*P* = population decrement each year

The journal entries at December 31, 2X13 are:

| Pension expense   | 137,273 |
|-------------------|---------|
| Cash              | 120,000 |
| Pension liability | 17,273  |

# **Summary of Accounting for Pension Plans**

Exhibit 4 presents a summary of the accounting for pension plans.

**Exhibit 4: Pension Plan Accounting** 

| Items                                 | Journal Entry Account        | Memo Account                 |
|---------------------------------------|------------------------------|------------------------------|
| Prior service cost (PSC) arising from | Other comprehensive income   | Projected benefit obligation |
| plan amendment                        | (OCI)—prior service cost Dr. | (PBO) Cr.                    |
| Service cost                          | Pension expense (PE) Dr.     | PBO Cr.                      |
| Interest cost on PBO                  | Pension expense Dr.          | PBO Cr.                      |
| Actual return                         | Pension expense Cr.          | Plan assets (PA) Dr.         |
| Amortization of PSC                   | PE Dr. and OCI (PSC) Cr.     |                              |
| Contributions                         | Cash Cr.                     | Plan assets Dr.              |
| Unexpected loss (expected return      | OCI (G/L) Dr. and PE Cr.     |                              |
| exceeds actual return on plan         |                              |                              |
| assets)                               |                              |                              |
| Unexpected gain (actual return        | PE Dr. and OCI (G/L) Cr.     |                              |
| exceeds expected return on plan       |                              |                              |
| assets)                               |                              |                              |
| Liability (PBO) increase              | OCI (G/L) Dr.                | PBO Cr.                      |
| Liability (PBO) decrease              | OCI (G/L) Cr.                | PBO Dr.                      |
| Amortization of excess loss over the  | PE Dr. and OCI (G/L) Cr.     |                              |
| corridor                              |                              |                              |
| Amortization of excess gain over the  | OCI (G/L) Dr. and PE Cr.     |                              |
| corridor                              |                              |                              |

# **Application Examples**

The application examples will make clearer the pension requirements.

### EXAMPLE

Stevens Company provides the following data:

| Fair market value of plan assets—1/1/2X12 | \$15,000 |
|---|----------|
| Projected benefit obligation—1/1/2X12     | \$15,000 |
| Employer contributions                    | \$ 1,200 |
| Benefit payments to retirees              | \$ 1,050 |
| Actual return on plan assets              | \$ 1,500 |
| Service cost                              | \$ 1,350 |
| Interest rate                             | 10%      |

The fair market value of plan assets and the projected benefit obligation are the same at January 1, 2X12, so there is a zero balance in the pension asset/liability account.

|                      |                 | Stevens Comp | oany Worksheet 1 |            |             |  |  |
|----------------------|-----------------|--------------|------------------|------------|-------------|--|--|
|                      | Journal Entries |              |                  |            | Memo        |  |  |
|                      | Pension         |              | Pension Asset/   |            |             |  |  |
| Items                | Expense         | Cash         | Liability        | PBO        | Plan Assets |  |  |
| Balance-1/1/2X12     |                 |              |                  | 15,000 Cr. | 15,000 Dr.  |  |  |
| Service cost         | 1,350 Dr.       |              |                  | 1,350 Cr.  |             |  |  |
| Interest cost        | 1,500 Dr.       |              |                  | 1,500 Cr.  |             |  |  |
| Actual return        | 1,500 Cr.       |              |                  |            | 1,500 Dr.   |  |  |
| Contributions        |                 | 1,200 Cr.    |                  |            | 1,200 Dr.   |  |  |
| Benefit Payments     |                 |              |                  | 1,050 Dr.  | 1,050 Cr.   |  |  |
| JE for year 2X12     | 1,350 Dr.       | 1,200 Cr.    | 150 Cr.          |            |             |  |  |
| Balance — 12/31/2X12 |                 |              | 150 Cr.          | 16,800 Cr. | 16,650 Dr.  |  |  |

#### Interest cost = interest rate × PBO $-1/1/2X12 = 10\% \times $15,000 = $1,500$

#### Notes:

- Service cost and interest cost increase pension expense and the PBO.
- Actual return reduces pension expense and increases plan assets.
- Contributions reduce cash and increase plan assets.
- Benefit payments reduce plan assets and the PBO.

The journal entry on December 31, 2X12, is:

| Pension expense   | 1,350 |
|-------------------|-------|
| Cash              | 1,200 |
| Pension liability | 150   |

A pension liability exists because the plan is underfunded (amount funded is less than pension expense). On the other hand, if the plan was overfunded, a pension asset would arise.

The pension liability of \$150 can also be determined by comparing the PBO and plan assets, as indicated in the memo column of Worksheet 1 as follows:

| Projected benefit obligation (credit)    | \$16,800 |
|--|----------|
| Fair market value of plan assets (debit) | 16,650   |
| Pension liability (credit)               | \$ 150   |

**Note:** If the fair market value of plan assets (debit) exceeded the projected benefit obligation (credit), there would be a pension asset (debit).

#### EXAMPLE

This continues the previous example for Stevens Company for the year 2X13. On January 1, 2X13, the company has a prior service cost of \$12,000 due to modifying its pension plan. Amortization of prior service cost is assumed to be \$4,080. Additional information follows:

| Benefit payments to retirees                      | \$ 1,200 |
|---|----------|
| Contributions                                     | \$ 3,000 |
| Service cost                                      | \$ 1,425 |
| Actual return on plan assets                      | \$ 1,665 |
| Accumulated other comprehensive income-12/31/2X12 | - 0 -    |
| Interest rate                                     | 10%      |

|                    | S           | tevens C  | ompany Work    | sheet 2         |            |             |
|--------------------|-------------|-----------|----------------|-----------------|------------|-------------|
|                    |             | Мето      |                |                 |            |             |
|                    |             |           | Other          |                 |            |             |
|                    |             |           | Comprehensiv   |                 |            |             |
|                    |             |           | e Income       |                 |            |             |
|                    | Pension     |           | (Prior Service | Pension         |            |             |
| Items              | Expense     | Cash      | Cost)          | Asset/Liability | PBO        | Plan Assets |
| Balance—           |             |           |                |                 |            |             |
| 12/31/2X12         |             |           |                | 150 Cr.         | 16,800 Cr. | 16,650 Di   |
| Prior Service cost |             |           | 12,000 Dr.     |                 | 12,000 Cr. |             |
| Balance—           |             |           |                |                 |            |             |
| 1/1/2X13           |             |           |                |                 | 28,800 Cr. | 16,650 Di   |
| Service cost       | 1,425 Dr.   |           |                |                 | 1,425 Cr.  |             |
| Interest cost      | 2,880 Dr.   |           |                |                 | 2,880 Cr.  |             |
| Actual return      | 1,665 Cr.   |           |                |                 |            | 1,665 Di    |
| Amortization of    |             |           |                |                 |            |             |
| PSC                | 4,080 Dr.   |           | 4,080 Cr.      |                 |            |             |
| Contributions      | 3           | 3,000 Cr. |                |                 |            | 3,000 Di    |
| Benefit payments   |             |           |                |                 | 1,200 Dr.  | 1,200 Ci    |
| JE for 2X13        | 6,720 Dr. 3 | 3,000 Cr. | 7,920 Dr.      | 11,640 Cr.      |            |             |
| Accumulated        |             |           |                |                 |            |             |
| OCI—               |             |           |                |                 |            |             |
| 12/31/2X12         |             |           | 0              |                 |            |             |

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| Balance—   |           |            |            |            |
|------------|-----------|------------|------------|------------|
| 12/31/2X13 | 7,920 Dr. | 11,790 Cr. | 31,905 Cr. | 20,115 Dr. |
|            |           |            |            |            |

#### Notes:

- Interest cost = interest rate × PBO (beginning of year) = 10% × \$28,800 = \$2,880
- The granting of prior service cost increases the PBO and reduces OCI by \$12,000.
- Amortization of prior service cost is debited to pension expense and credited to OCI for \$4,080.

The journal entry on December 31, 2X13, is:

| Pension expense                                 | 6,720 |        |
|---|-------|--------|
| Other comprehensive income (prior service cost) | 7,920 |        |
| Cash  |       | 3,000  |
| Pension liability                               |       | 11,640 |

The balance in the pension liability presented in the balance sheet on December 31, 2X13, equals \$11,790 (\$150 + \$11,640). The balance of the pension liability can also be derived as follows:

| Projected benefit obligation (credit)    | \$31,905        |
|--|-----------------|
| Fair market value of plan assets (debit) | 20,115          |
| Pension liability (credit)               | <u>\$11,790</u> |

### EXAMPLE

This continues the previous example for Stevens Company for the year 2X14. The following data is presented for 2X14:

| Service cost                       | \$1,950 |
|------------------------------------|---------|
| Amortization of prior service cost | \$3,120 |
| Actual return on plan assets       | \$1,800 |
| Benefit payments to retirees       | \$1,575 |
| Contributions                      | \$3,600 |
| Interest rate                      | 10%     |
| Expected return rate               | 10%     |

Changes in actuarial assumptions resulted in a year-end balance of the projected benefit obligation of \$39,750.

#### **Stevens Company Worksheet 3**

|                     |           | Journa   | al Entries     |              |                   |            | Memo        |
|---------------------|-----------|----------|----------------|--------------|-------------------|------------|-------------|
|                     |           |          | Other Comp     | rehensive In | соте              |            |             |
|                     | Pension   |          | (Prior Service | (Gains/      | Pension<br>Asset/ |            |             |
| Items               | Expense   | Cash     | Cost)          | Losses)      | Liability         | PBO        | Plan Assets |
| Balance – 1/1/2X14  |           |          |                |              | 11,790 Cr.        | 31,905 Cr. | 20,115 Dr   |
| Service cost        | 1,950 Dr. |          |                |              |                   | 1,950 Cr.  |             |
| Interest cost       | 3,191 Dr. |          |                |              |                   | 3,191 Cr.  |             |
| Actual return       | 1,800 Cr. |          |                |              |                   |            | 1,800 Dr    |
| Unexpected loss     | 212 Cr.   |          |                | 212 Dr.      |                   |            |             |
| Amortization of PSC | 3,120 Dr. |          | 3,120 Cr.      |              |                   |            |             |
| Contributions       |           | 3,600 Cr |                |              |                   |            | 3,600 Dr    |
| Benefit payments    |           |          |                |              |                   | 1,575 Dr.  | 1,575 Cr    |
| Liability increase* |           |          |                | 7,845 Dr.    |                   | 7,845 Cr.  |             |
| JE for 2X14         | 6,249 Dr. | 3,600 Cr | . 3,120 Cr.    | 8,057 Dr.    | 7,586 Cr.         |            |             |
| Accumulated OCI—    |           |          |                |              |                   |            |             |
| 12/31/2X14          |           |          | 7,920 Dr.      | 0            |                   |            |             |
| Balance— 12/31/2X15 |           |          | 4,800 Dr.      | 8,057 Dr.    | 19,376 Cr.        | 43,316 Cr. | 23,940 Dr   |

#### Notes:

- Interest cost = interest rate × PBO (beginning of year) = 10% × \$31,905 = \$3,191
- Unexpected loss = expected return actual return = \$2,012 \$1,800 = \$212
- Expected return = return rate × plan assets (beginning of year) = 10% × \$20,115 = \$2,012
- Stevens Company defers the unexpected loss of \$212 by debiting OCI (G/L) and crediting pension expense. Because of this adjustment, the expected return on plan assets is the amount actually used to compute pension expense.
- Liability increase = PBO (end of year) PBO (beginning of year) = \$39,750 \$31,905 = \$7,845

\*This entry records the change in the PBO because of the change in actuarial assumptions. The actuary computed the ending balance of \$39,750. The PBO balance at December 31, 2X13, is computed below:

| PBO—12/31/2X13                             | \$31,905 |
|--|----------|
| Service cost                               | 1,950    |
| Interest cost                              | 3,191    |
| Benefits paid                              | (1,575)  |
| PBO—12/31/2X14 (before liability increase) | \$35,471 |

The difference between the ending balance of \$43,316 and the balance of the PBO (before liability increase) is \$7,845 (\$43,316 - \$35,471). The increase of \$7,845 in the employer's liability is an unexpected loss.

The \$19,376 balance in the pension liability at December 31, 2X14, equals the net of the balances in the memo accounts, as indicated below:

| Projected benefit obligation (credit)<br>Fair market value of plan assets (debit)<br>Pension liability (credit)<br>The journal entry on December 31, 2X14, is: |                | \$43,316<br>23,940<br>\$19,376 |
|--|----------------|--------------------------------|
| Pension expense<br>Other comprehensive income (G/L)<br>Cash<br>Other comprehensive income (prior service cost)<br>Pension liability                            | 6,249<br>8,057 | 3,600<br>3,120<br>7,586        |

### EXAMPLE

This continues the previous example for Stevens Company for the year 2X15. The following information is given for 2X15:

| Service cost                             | \$2,400  |
|--|----------|
| Amortization of prior service cost       | \$2,640  |
| Actual return on plan assets             | \$3,300  |
| Benefit payments to retirees             | \$2,700  |
| Contributions                            | \$4,050  |
| Interest rate                            | 10%      |
| Expected return rate                     | 10%      |
| Average service life of eligible workers | 10 years |

|                 | Stevens         | s Compan  | y Workshee | et 4           |                 |          |                |
|-----------------|-----------------|-----------|------------|----------------|-----------------|----------|----------------|
|                 |                 | Journal I | Entries    |                |                 | Me       | то             |
|                 |                 | Other (   | Comprehens | sive Income    |                 |          |                |
|                 |                 |           | (Prior     |                |                 |          |                |
|                 |                 |           | Service    |                | Pension         |          | Plan           |
| Items           | Pension Expense | Cash      | Cost)      | (Gains/Losses) | Asset/Liability | PBO      | Assets         |
| Balance—        |                 |           |            |                |                 |          |                |
| 12/31/2X14      |                 |           |            |                | 19,376 Cr.      | 43,316 C | Cr. 23,940 Dr. |
| Service cost    | 2,400 Dr.       |           |            |                |                 | 2,400 C  | Cr.            |
| Interest cost   | 4,332 Dr.       |           |            |                |                 | 4,332 0  | Cr.            |
| Actual return   | 3,300 Cr.       |           |            |                |                 |          | 3,300 Dr.      |
| Unexpected gain | 906 Dr.         |           |            | 906 Cr.        |                 |          |                |

| Amortization o   | f         |           |           |            |            |            |           |
|------------------|-----------|-----------|-----------|------------|------------|------------|-----------|
| PSC              | 2,640 Dr. |           | 2,640 Cr. |            |            |            |           |
| Contributions    |           | 4,050 Cr. |           |            |            |            | 4,050 Dr. |
| Benefit payments | 5         |           |           |            |            | 2,700 Dr.  | 2,700 Dr. |
| Amortization o   | f         |           |           |            |            |            |           |
| loss             | 373 Dr.   |           |           | 373 Cr.    |            |            |           |
| JE for 2X15      | 7,351 Dr. | 4,050 Cr. | 2,640 Cr. | 1,279 Cr.  | 618 Dr.    |            |           |
| Accumulated      |           |           |           |            |            |            |           |
| OCI-             |           |           |           |            |            |            |           |
| 12/31/2X14       |           | 4,800 Dr. | 8,057 Dr. |            |            |            |           |
| Balance—         | -         |           |           |            |            |            |           |
| 12/31/2X15       |           | 2,160 Dr. | 6,778 Dr. | 18,758 Cr. | 47,348 Cr. | 28,590 Dr. |           |
|                  | -         |           |           |            |            |            |           |

#### Notes:

- Interest cost = interest rate × PBO (beginning of year) = 10% ×\$43,316 = \$4,332
- Unexpected gain = actual return expected return = \$3,300 \$2,394 = \$906
- Expected return = return rate ×plan assets (beginning of year) = 10% × \$23,940 = \$2,394

Stevens Company defers the unexpected gain of \$906 by crediting OCI (G/L) and debiting pension expense. Because of this adjustment the expected return on plan assets is the amount actually used to compute pension expense. By netting the gain of \$906 against the actual return of \$3,300, pension expense is affected only by the expected return of \$2,394.

Stevens Company begins the year 2X15 with a balance in the net loss account of \$8,057. The corridor test is applied in 2X15 to determine if the balance is excessive and should be amortized. The corridor equals 10% of the greater of the beginning balances of plan assets (\$23,940) or projected benefit obligation (\$43,316). Therefore, the corridor equals \$4,332 (10% × \$43,316). Because the balance in the accumulated other comprehensive income account is a net loss of \$8,057, the excess over the corridor equals \$3,725 (\$8,057 - \$4,332). This excess (\$3,725) is amortized over the average remaining service life of employees (10 years), so that the amortization for 2X15 is \$373 (\$3,725  $\div$  10 years). The company debits pension expense and credits other comprehensive income for \$373.

A schedule for the 2X15 corridor test follows:

| Net (gain) or loss at beginning of year in accumulated OCI    | \$8,057  |
|---|----------|
| 10% of greater of plan assets or projected benefit obligation |          |
| (10% × \$43,316)  | 4,332    |
| Amount to be amortized  | 3,725    |
| Average service life  | 10 years |

| Amortization for 2X15 (\$3,725 × 10 years)                   |                 | \$ 373   |
|--|-----------------|----------|
| The journal entry to record pension expense for 2X15 is:     |                 |          |
| Pension expense  | 7,351           |          |
| Pension asset/liability                                      | 618             |          |
| Cash   |                 | 4,050    |
| Other comprehensive income (G/L)                             |                 | 1,279    |
| Other comprehensive income (prior service cost)              |                 | 2,640    |
| The balance on December 31, 2X15, of \$18,758 in pension lia | ability equals: |          |
| Projected benefit obligation (credit)                        |                 | \$47,348 |
| Fair market value of plan assets (debit)                     |                 | 28,590   |
| Pension liability (credit)                                   |                 | \$18,758 |

### **Business Combinations**

If a single-employer defined benefit pension plan is acquired as part of an acquisition method acquisition of another company, a liability must be recognized for the excess of the projected benefit obligation over the fair value of the pension plan assets. On the other hand, an asset would be recorded if the plan assets exceed the projected benefit obligation. The projected benefit obligation includes the impact of an anticipated curtailment or termination of the acquired pension plan. The asset or liability recognized at the purchase date will be adjusted for the differences between the acquiring company's net pension cost and the amounts contributed.

ASC 805-20-55-50, *Business Combinations: Identifiable Assets and Liabilities, and Any Noncontrolling Interest,* covers the recognition of liabilities for contractual termination benefits or changing benefit plan assumptions in anticipation of a business combination.

## **Discontinued Operations**

If a disposal of a business segment occurs, any termination benefits must be recognized and reported as a component of discontinued operations in the income statement.

## **Employers Having More Than One Defined Benefit Plan**

As per ASC 962-10-05, if an employer has more than one pension plan, it must make separate computations of pension expense, fair value of plan assets, and liabilities for each plan.

The employer may not offset assets or liabilities of different pension plans unless there is a legal right to use the assets on one plan to satisfy the debt or benefits of another plan.

Disclosures may be aggregated for all pension plans maintained by the employer except for U.S. pension plans, which may not be combined with foreign pension plans unless there are similar assumptions used for both.

# **Multiemployer Plans**

A multiemployer plan typically includes participation of two or more unrelated employers and often ensues from a collective bargaining arrangement with the union. The plan is usually administered by a board of trustees. In this case, plan assets contributed by one employer may be used to pay employee benefits of another participating employer. Thus, the assets are aggregated for all employers and are available and unrestricted to pay benefits to all employees, regardless of whom they are employed by. In other words, there is no segregation of assets in a particular employer's account or any restrictions placed on that employer's assets. An example is a plan contributed to by all employers employing the members of a particular union, regardless of whom the employees are employed by. Retirees of different employers receive payment from the same pooled fund. The Teamster's Union is a case in point.

In a multiemployer plan, the employer's pension expense equals its contribution to the plan for the year. If a contribution is due but yet unpaid, the employer must recognize it as a liability.

If an employer withdraws from the multiemployer plan, it may incur a liability for its part of the unfunded benefit obligation of the plan. If an employer would probably incur a liability if it withdrew from the plan and the amount is reasonably determinable, a loss must be accrued with a concurrent liability. However, if the loss is reasonably possible, only footnote disclosure is required.

ASC 715-80-55-2, *Compensation—Retirement Benefits: Multiemployer Plans*, stipulates that an employer need not record a liability for an amount beyond that currently due.

The following must be disclosed by employers participating in a multiemployer plan:

- □ A description of the plan including workers covered.
- □ The benefits to be provided.
- □ Nature of matters impacting on the comparability of information for the years presented.
- D Pension expense for the period.

## **Multiple-Employer Plans**

These plans are similar to multiemployer plans. They also consist of two or more unrelated employers. However, multiple-employer plans are, in effect, aggregated single-employer plans that are combined so that assets of all may be totaled to lower administrative costs. The assets are also merged to improve the overall rate of return

from investing them. In many cases, participating employers may use different benefit formulas for their respective pension contributions. Each employer in the plan accounts for its particular interest separately. An example of such an arrangement is when companies in an industry have their trade association handle the plans of all the companies. Each company retains its responsibilities only for its own workers. Multiple-employer plans are usually not associated with collective bargaining contracts.

# **Annuity (Allocated) Contracts**

An employer may sign a valid and irrevocable insurance contract to pay benefit obligations arising from a defined benefit plan. Annuity contracts are used to transfer the risk of providing employee benefits from the employer to the insurance company.

If the annuity contracts are the basis for funding the pension plan and paying plan obligations thereto, the insurance premium paid by the employer is the pension expense for the period covering all currently earned benefits. In this case, the company and plan do not report plan assets, accumulated benefit obligation, or a projected benefit obligation. On the other hand, if the annuity contracts cover just part of the benefit obligation, the employer is liable for the uncovered obligation. Such uncovered obligation is accounted for as per the usual requirements under ASC 962-10-05 specified in this course for pension plans.

In a participating annuity contract, the insurer pays the employer part of the income earned from investing the insurance premiums. In most cases, income earned (e.g., dividends, interest) reduces pension cost. A drawback to the employer of a participating contract is that it costs more than one that is nonparticipating because of the participation right. This additional cost associated with the participation privilege should be recognized as a pension plan asset. Therefore, except for the cost of participation rights, pension plan assets exclude the cost of annuity contracts. In later years, fair value should be used in valuing the participation right included in plan assets. In the event that fair value may not be reasonably determined, the asset should be recorded at cost, with amortization based on the dividend period specified in the agreement. However, unamortized cost cannot exceed the net realizable value of the participation right.

**Caution:** If the terms of the participating annuity contract are such that the employer retains all or most of the risk related to the benefit obligation, the purchase of this contract does not represent a settlement of the employer's obligations under the pension plan.

Insurance contracts other than annuity contracts are considered investments. They are reported as pension plan assets and reported at fair value. Fair value may be in terms of conversion value, contract value, or cash surrender value, for example, depending on the circumstances.

In terms of accounting for pension plans, the definition of an annuity contract is not satisfied if one or both of the following exists:

There is a captive insurance company, meaning that the insurance entity has as its major client the employer or any of its associated parties.

There is uncertainty as to whether the insurance company will be able to pay its obligations because of financial problems.

ASC 715-30-35-90 and 35-91, *Compensation—Retirement Benefits: Defined Benefit Plans—Pension* (EITF Consensus Summary No. 91-7, *Accounting for Pension Benefits Paid by Employers after Insurance Companies Fail to Provide Annuity Benefits*), stipulates that the employer must record a loss when it assumes the obligation to pay retirees because the insurance company is financially unable to do so (e.g., bankruptcy). The loss is recorded at the lower of any gain associated with the original insurance contract or the amount of benefit obligation assumed. Any unrecognized additional loss should be treated as an amendment to the pension plan.

# Disclosures

A single-employer pension plan requires the following footnote disclosures:

- Description of the plan, including categorization of workers covered, retirement age, investment policies and strategies, funding policy, benefit formula, and benefits provided.
- Reconciliation of the beginning and ending balances of the PBO. It should display separately the effects during the period of (1) service cost, (2) interest cost, (3) participants' contributions, (4) actuarial gains and losses, (5) foreign currency exchange rate changes, (6) benefits paid, (7) plan amendments, (8) business combinations, (9) divestitures, (10) curtailments, (11) settlements, and (12) special termination benefits.
- A reconciliation of beginning and ending balances of the fair value of plan assets showing separately, if applicable, the effects during the period attributable to each of the following: (1) Actual return on plan assets; (2) Foreign currency exchange rate changes; (3) Contributions by the employer (4) Contributions by plan participants; (5) Benefits paid; (6) Business combinations; (7) Divestitures; (8) Settlements.
- □ A table showing the major categories of plan assets (equity securities, debt securities, real estate, and other assets) along with the percentage of the fair value to total plan assets. In addition, information should be provided on investment strategy, expected long-term rate of return and target allocations.
- □ The funded status of the plans and the amounts recognized in the statement of financial position, showing separately the assets and current and noncurrent liabilities recognized.
- □ A schedule showing all the major components of the pension expense.
- □ The expected benefits payment to be paid in each of the next five fiscal years, and in the aggregate for the five fiscal years thereafter.

- The employer's best estimate of contributions expected to be paid to the plan during the next fiscal year.
- Accumulated amount of changes in pension assets and benefit obligations that have been recognized in other comprehensive income and would be recycled into net profit in future years. This information indicates pension and related balances recognized in stockholders' equity, which will impact future income.
- On a weighted average basis, the rates used to determine the benefit obligation and the assumptions used to determine net benefit cost, including assumed discount rates, rates of compensation increase, and expected long-term rates of return.
- Pension plan commitments, such as a commitment to increase benefits.
- Amount and timing of any plan assets expected to be returned to the company during the 12-month period or operating cycle, if longer.
- Prior service cost and a description of the amortization policy.
- □ Unrecognized net gain or loss.
- Nature and impact of matters bearing upon the ability to compare pension data over the years. (The amount of annual benefits to retirees covered by the annuity contracts should be indicated.)
- Amount of anticipated net actuarial gain or loss and prior service costs or credits that will be amortized from accumulated other comprehensive income into net income over the next fiscal year. This information aids in predicting the impact of deferred pension expense items on next year's income.
- □ Amount in accumulated other comprehensive income that has not yet been recognized as a component of net periodic benefit cost, showing separately the net gain or loss, net prior service cost or credit, and transition asset or obligation.

Optional disclosures for single-employer plans may also be provided, including the following:

- Cash flow information with regard to employer funding and benefits paid during the period.
- Percentage of pension expense to total salaries.
- Change in the projected benefit obligation that would arise from a one-percentage change in the assumed discount rate and the assumed rate of compensation increase.

The preceding disclosures may be aggregated for all of the employer's pension plans or presented in groups. Disclosures associated with U.S. plans should be separate from those outside the United States unless the plans are similar and use the same assumptions.

Exhibit 5 shows the note disclosure of Hanesbrands' pension plan for 2010.

Exhibit 5:

Hanesbrands

2010 Annual Report

### **15. Defined Benefit Pension Plans**

At January 1, 2011, the Company's pension plans consisted of the Hanesbrands Inc. Pension Plan, various nonqualified retirement plans and international plans. Benefits under the Hanesbrands Inc. Pension Plan were frozen effective December 31, 2005.

The annual cost (income) incurred by the Company for these defined benefit plans in 2010, 2009 and 2008, was \$14,806, \$21,293 and \$(11,801), respectively. The components of net periodic benefit cost and other amounts recognized in other comprehensive loss of the Company's noncontributory defined benefit pension plans were as follows:

|   |                   | Years Ended    |                   |
|---|-------------------|----------------|-------------------|
|   |                   |                | January 3,        |
|   | January 1, 2011 J | anuary 2, 2010 | 2009              |
| Service cost  | \$ 1,225          | \$ 1,198       | \$ 1,136          |
| Interest cost   | 49,337            | 50,755         | 51,412            |
| Expected return on assets                               | (44,094)          | (39,832)       | (64 <i>,</i> 549) |
| Settlement cost   | 139               | -              | -                 |
| Amortization of:  |                   |                |                   |
| Prior service cost                                      | 26                | 26             | 39                |
| Net actuarial loss                                      | 8,173             | 9,146          | 161               |
| Net periodic benefit cost (income)                      | \$ 14,806         | \$ 21,293      | \$ (11,801)       |
| Other Changes in Plan Assets and Benefit Obligations    | 5                 |                |                   |
| Recognized in Other Comprehensive Income (Loss)         |                   |                |                   |
| Net (gain) loss   | \$ 6,605          | \$ (11,947)    | \$ 300,127        |
| Prior service cost                                      | (26)              | (26)           | (140)             |
| Total recognized in other comprehensive loss (income)   | 6,579             | (11,973)       | 299,987           |
| Total recognized in net periodic benefit cost and other | r                 |                |                   |
| comprehensive loss (income)                             | \$ 21,385         | \$ 9,320       | \$ 288,186        |

The estimated net loss and prior service credit for the defined benefit pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost in 2011 are \$9,111 and \$29, respectively.

The funded status of the Company's defined benefit pension plans at the respective year ends was as follows:

|                                 | January 1, 2011 January 2, 2010 |              |  |
|---------------------------------|---------------------------------|--------------|--|
| Accumulated benefit obligation: |                                 |              |  |
| Beginning of year               | \$ 899,208                      | \$ 854,414   |  |
| Service cost                    | 1,225                           | 1,198        |  |
| Interest cost                   | 49,337                          | 50,755       |  |
| Benefits paid                   | (56,859)                        | (57,782)     |  |
| Impact of exchange rate change  | 1,939                           | 2,711        |  |
| Settlements                     | (1,284)                         | (5,394)      |  |
| Actuarial loss                  | 38,055                          | 53,306       |  |
| End of year                     | 931,621                         | 899,208      |  |
| Fair value of plan assets:      |                                 |              |  |
| Beginning of year               | 612,590                         | 564,705      |  |
| Actual return on plan assets    | 67,624                          | 92,805       |  |
| Employer contributions          | 11,956                          | 16,052       |  |
| Benefits paid                   | (56,859)                        | (57,782)     |  |
| Settlements                     | (1,284)                         | (5,744)      |  |
| Impact of exchange rate change  | 1,141                           | 2,554        |  |
| End of year                     | 635,168                         | 612,590      |  |
| Funded status                   | \$ (296,453)                    | \$ (286,618) |  |

In the fourth quarter of 2010, the Company recognized a one-time out of period adjustment resulting from a review of census data for the Hanesbrands Inc. Pension Plan, which reduced the accumulated benefit obligation by \$18,892 and accumulated other comprehensive loss by \$11,359 (net of taxes). The impact of the adjustment was not considered material to any current year or prior year periods.

The total accumulated benefit obligation and the accumulated benefit obligation and fair value of plan assets for the Company's pension plans with accumulated benefit obligations in excess of plan assets are as follows:

|  | January 1, | January 2, |
|--|------------|------------|
|  | 2011       | 2010       |
| Accumulated benefit obligation                                     | \$ 931,621 | \$ 899,208 |
| Plans with accumulated benefit obligation in excess of plan assets |            |            |
| Accumulated benefit obligation                                     | 931,621    | 898,997    |
| Fair value of plan assets  | 635,168    | 612,317    |

Amounts recognized in the Company's Consolidated Balance Sheets consist of:

January 1, January 2,

|                                      | 2011               | 2010      |
|--------------------------------------|--------------------|-----------|
| Noncurrent assets                    | \$ -               | \$ 51     |
| Current liabilities                  | (2,177)            | (3,591)   |
| Noncurrent liabilities               | (294,276)          | (283,078) |
| Accumulated other comprehensive loss | (339 <i>,</i> 846) | (332,370) |

Amounts recognized in accumulated other comprehensive loss consist of:

|                    | January 1, | January 2, |
|--------------------|------------|------------|
|                    | 2011       | 2010       |
| Prior service cost | \$ 139     | \$ 165     |
| Actuarial loss     | 339,707    | 332,205    |
|                    | \$ 339,846 | \$ 332,370 |

Accrued benefit costs related to the Company's defined benefit pension plans are reported in the "Other noncurrent assets", "Accrued liabilities—Payroll and employee benefits" and "Pension and postretirement benefits" lines of the Consolidated Balance Sheets.

### (a) Measurement Date and Assumptions

A December 31 measurement date is used to value plan assets and obligations for the pension plans. In determining the discount rate, the Company utilizes, as a general benchmark, the single discount rate equivalent to discounting the expected cash flows from each plan using the yields at each duration from a published yield curve as of the measurement date. The expected long-term rate of return on plan assets was based on the Company's investment policy target allocation of the asset portfolio between various asset classes and the expected real returns of each asset class over various periods of time. The weighted average actuarial assumptions used in measuring the net periodic benefit cost and plan obligations for the periods presented were as follows:

|  | January 1, | January 2, | January 3, |
|--|------------|------------|------------|
|  | 2011       | 2010       | 2009       |
| Net periodic benefit cost:                   |            |            |            |
| Discount rate                                | 5.78       | % 6.11     | % 6.34 %   |
| Long-term rate of return on plan assets      | 7.48       | 7.41       | 8.03       |
| Rate of compensation increase <sup>(1)</sup> | 3.70       | 3.38       | 3.63       |
| Plan obligations:                            |            |            |            |
| Discount rate                                | 5.27       | % 5.78     | % 6.11 %   |
| Rate of compensation increase <sup>(1)</sup> | 3.75       | 3.70       | 3.38       |

<sup>(1)</sup> The compensation increase assumption applies to the international plans and portions of the nonqualified retirement plans, as benefits under these plans were not frozen at January 1, 2011, January 2, 2010 and January 3, 2009.

### (b) Plan Assets, Expected Benefit Payments, and Funding

|                           | January 1,<br>2011 | January 2,<br>2010 |   |
|---------------------------|--------------------|--------------------|---|
| Asset category:           |                    |                    |   |
| Hedge fund of funds       | 43                 | % 42               | % |
| U.S. equity securities    | 25                 | 23                 |   |
| Debt securities           | 18                 | 19                 |   |
| Foreign equity securities | 10                 | 11                 |   |
| Real estate               | 4                  | 3                  |   |
| Cash and other            | -                  | 2                  |   |

The allocation of pension plan assets as of the respective period end measurement dates is as follows:

The Company's asset strategy and primary investment objective are to maximize the principal value of the plan assets to meet current and future benefit obligations to plan participants and their beneficiaries. To accomplish this goal, the assets of the plan are broadly diversified to protect against large investment losses and to reduce the likelihood of excessive volatility of returns. Diversification of assets is achieved through strategic allocations to various asset classes, as well as various investment styles within these asset classes, and by retaining multiple, third-party investment management firms with complementary investment styles and philosophies to implement these allocations. The Company has established a target asset allocation based upon analysis of risk/return tradeoffs and correlations of asset mixes given long-term historical data, prospective capital market returns and forecasted liabilities of the plans. The target asset allocation approximates the actual asset allocation as of January 1, 2011. In addition to volatility protection, diversification enables the assets of the plan the best opportunity to provide adequate returns in order to meet the Company's investment return objectives. These objectives include, over a rolling five-year period, to achieve a total return which exceeds the required actuarial rate of return for the plan and to outperform a passive portfolio, consisting of a similar asset allocation.

The Company utilizes market data or assumptions that market participants would use in pricing the pension plan assets. Effective January 2, 2010, the Company adopted new pension disclosure rules. In accordance with these rules, a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value, is utilized for disclosing the fair value of the Company's pension plan assets. At January 1, 2011, the Company had \$202,604 classified as Level 1 assets, \$133,734 classified as Level 2 assets and \$298,830 classified as Level 3 assets. At January 2, 2010, the Company had \$201,571 classified as Level 1 assets, \$135,817 classified as Level 2 assets and \$275,202 classified as Level 3 assets. The Level 1 assets consisted primarily of U.S. equity securities, certain debt securities, certain foreign equity securities and cash and cash equivalents, Level 2 assets consisted primarily of certain debt securities and certain foreign equity securities, and Level 3 assets consisted primarily of hedge fund of funds and real estate investments. Refer to Note 14 for the Company's complete disclosure of the fair value of pension plan assets.

The Company expects to make a \$7 million to \$9 million contribution to the Hanesbrands Inc. Pension Plan in 2011 based on a preliminary calculation by its actuary. Expected benefit payments are as follows: \$50,993 in 2011, \$50,430 in 2012, \$50,341 in 2013, \$52,510 in 2014, \$53,392 in 2015 and \$280,310 thereafter.

## **Financial Statement Analysis**

An analysis should be made of the components making up pension plan assets. Are there risky or speculative investments in the portfolio? Is there an excessive percentage of assets invested in a particular stock? If the company needs to be liquidated, how much of pension plan assets are protected to meet pension plan deficiencies?

## **Employee Retirement Income Security Act (ERISA)**

This Act was passed in 1974. It enumerates law for pension plans so as to improve their financial viability and to safeguard employee interests. A Pension Benefit Guaranty Corporation (PBGC) was created to protect against employees losing their pension benefits. The PBGC guarantees that employees will receive a minimum amount of benefits based on their service years in the event of employer bankruptcy. To provide funds to pay employees, employers are required to pay insurance premiums to the PBGC. The Act requires certain employee participation in the pension plan. The PBGC has the authority to administer a terminated plan. The Act mandates that annual reports on the pension plan be provided, including plan assets and liabilities as well as a description of the plan. The Act generally provides for full vesting of pension benefits when an employee has been in the service of the employer for 15 years. Minimum funding levels for employers are specified. Past service costs must be funded over a period not exceeding 40 years. An employer's violation of the statute's provisions may result in penalties, liens on or seizure of assets, and the loss of tax deductions.

## Life Insurance

ASC 715-60-05-13, *Compensation—Retirement Benefits: Defined Benefit Plans—Other Postretirement*, states that the employer should recognize a liability for future post-employment benefits based on the substantive employee agreement or collateral assignment arrangement.

# **Review Questions – Section 2**

10. On July 31, 2X12, Tern Co. amended its single employee defined benefit pension plan by granting increased benefits for services provided prior to 2X12. This prior service cost will be reflected in the financial statement(s) for

- A. Years before 2X12 only.
- B. Year 2X12 only.
- C. Year 2X12 and years before and following 2X12.
- D. Year 2X12 and following years only.

11. Prior service cost (PSC) is defined as the cost of benefit improvements attributable to plan participants' prior service pursuant to a plan amendment or a plan initiation that provides benefits in exchange for plan participants' prior service. The general rule is that prior service cost should be recognized in postretirement benefit expense

- A. By assigning an equal amount to each year of service remaining until the full eligibility date of each participant active at the amendment date who was not yet fully eligible for benefits.
- B. In full in the accounting period in which the plan is amended.
- C. By amortizing it over the remaining life expectancy of the participants.
- D. In accordance with straight-line amortization over the average remaining years to full eligibility of the active participants.

12. The following information pertains to Lee Corp.'s defined benefit pension plan for Year 1: Service cost = \$160,000; Actual and expected gain on plan assets = \$35,000; Unexpected loss on plan assets related to a Year 1 disposal of a subsidiary = \$40,000; Amortization of prior service cost = \$5,000; Annual interest on pension obligations = \$50,000. What amount must Lee report as pension expense in its Year 1 income statement?

- A. \$250,000
- B. \$220,000
- C. \$210,000
- D. \$180,000

13. Sheen Company maintains a defined benefit pension plan for its employees. For the fiscal year ended December 31, 2X13, it reported a pension liability. The liability is the amount by which the

A. Pension expense exceeds the cash funded (underfunded).

- B. PBO exceeds the vested benefit obligation (VBO).
- C. Vested benefit obligation exceeds the fair value of plan assets.
- D. Accumulated benefit obligation (ABO) exceeds contributions to the plan.

14. In its December 31, Year 1, balance sheet, what amount should Kane report as the unfunded or overfunded projected benefit obligation (PBO) if the following is the only information pertaining to Kane Co.'s defined benefit pension plan? Pension asset, January 1, Year 1 = \$2,000; Service cost = \$19,000; Interest cost = \$38,000; Actual and expected return on plan assets = \$22,000; Amortization of prior service cost arising in a prior period = \$52,000; Employer contributions = \$40,000.

- A. \$7,000 overfunded.
- B. \$15,000 underfunded.
- C. \$45,000 underfunded.
- D. \$52,000 underfunded.

15. A public entity that sponsors a defined benefit pension plan must disclose in the notes to its financial statements a reconciliation of

- A. The vested and nonvested benefit obligation of its pension plan with the accumulated benefit obligation.
- B. The accrued or prepaid pension cost reported in its balance sheet with the pension expense reported in its income statement.
- C. The accumulated benefit obligation of its pension plan with its projected benefit obligation.
- D. The beginning and ending balances of the projected benefit obligation (PBO).

# Settlement, Curtailment, and Termination

ASC 715-30, Compensation—Retirement Benefits: Defined Benefit Plans—Pension, amends ASC 715-60-05-12, Compensation—Retirement Benefits: Defined Benefit Plans—Other Postretirement. ASC 715-60-05-12 covers situations in which modifications are made to pension plans.

# Settlement

A settlement is defined as an irrevocable action that relieves the employer (or the plan) of the primary responsibility for a PBO and eliminates significant risks related to the pension obligation and the assets used to effect the settlement. Examples of settlements include:

- Acquiring annuity contracts to cover participants' vested benefits.
- Making lump sum payments to pension plan participants in satisfaction of their right to receive pension benefits.

A settlement has to meet each of the following criteria:

- It must significantly reduce risk of the pension obligation.
- It must relieve pension benefit responsibility.
- It must be irrevocable.

After the settlement of a pension plan, the employer may choose to provide pension benefits in a new plan or continue the old plan.

In accounting for a settlement, the amount of the gain or loss is a function of the percentage of the projected benefit obligation (PBO) that has been reduced. That is, if only a portion of the PBO is settled, only a proportionate part of the maximum gain or loss is recognized. The maximum potential settlement gain or loss is the sum of any unrecognized net gain or loss plus any remaining transition net asset. The proportion of maximum gain or loss recognized in earnings equals the percentage reduction in the PBO. If, for example, the PBO is reduced by 60%, then 60% of the gain or loss is recognized in the current year's income statement. Correspondingly, if the employer's PBO is completely discharged, the total gain or loss at the date of settlement is recognized. Settlement gains or losses do not, in most situations, meet the requirements of extraordinary items and therefore are considered ordinary. Full disclosure should always be made of the nature of the settlement.

### EXAMPLE

1. On December 31, 20X2, X Company made a lump-sum payment to retirees to satisfy the benefits of all retired individuals.

2. On December 31, 20X2, the plan's projected benefit obligation consisted of the following two components:

| Cost of settling retirees benefits            | \$100,000 |
|---|-----------|
| Benefits owed to active employees—not settled | 70,000    |
| Total Projected Benefit Obligation            | \$170,000 |

3. On December 31, 20X2, the Company disclosed the following on its balance sheet related to pension disclosure:

| Projected benefit obligation                  | \$(170,000) |
|---|-------------|
| Plan assets                                   | 200,000     |
| Funded status                                 | 30,000      |
| Unrecognized prior service costs              | 24,000      |
| Net loss                                      | 20,000      |
| Net obligation at the time FAS-87 was adopted | (50,000)    |
| Prepaid pension cost                          | 24,000      |
| MAXIMUM GAIN (LOSS) ON SETTLEMENT             |             |
| Unrecognized net loss prior to settlement     | \$(20,000)  |
| Net Obligation at time FAS-87 was adopted     | 50,000      |
| Maximum gain recognizable                     | \$ 30,000   |
|   |             |

Settlement Reduction of the Projected Benefit Obligation:

| Projected benefit obligation settled |  | \$100,000 | _ | 59%  |
|--------------------------------------|--|-----------|---|------|
| Total project benefit obligation     |  | \$170,000 |   | 3970 |

| SETTLEMENT GAIN                           |          |
|---|----------|
| Maximum gain recognizable                 | \$30,000 |
| Reduction in projected benefit obligation | X59%     |
| Settlement gain                           | \$17,700 |
|   |          |

The same application would apply, for example, if an employer gives employees a lump-sum payment in exchange for their pension rights. The gain or loss on settlement is recognized in the current year's income statement. If there is a settlement of only part of the plan, only a proportionate share of the gain or loss, as before, is recognized.

# Curtailment

A curtailment takes place when an occurrence materially reduces the future years of service of current employees or eliminates for most workers the accumulation of defined benefits for future services. An example is the closing of a plant, terminating employment.

The gain or loss arising from curtailment is recognized in the current year's income statement. A curtailment net gain or loss equals the combined amounts of

- 1. the unrecognized prior service cost associated with years of service no longer expected to be rendered, and
- 2. the change in the PBO that does not represent a reversal of previously unrecognized net gains or losses. For this purpose, unrecognized prior service cost includes any remaining unrecognized transition net obligation.

In a curtailment, some of the future pension benefits for employees currently employed are reduced, resulting in a gain (PBO decrease) or loss (PBO increase). For example, the PBO may be decreased by the amount of the pension benefits that the entity does not have to pay as a result of some employees being terminated. If, on the other hand, these employees (those who are terminated) are eligible for subsidized early retirement and benefits earlier than expected, an increase in the PBO occurs.

It is important to note that a pension plan curtailment may occur by itself or in conjunction with a settlement. If, for example, years of future service are cut back as a result of the discontinuance of a segment of a business, but the pension plan continues overall for the employees of the entity, a curtailment has occurred but a settlement has not. If, on the other hand, the employer totally terminates the entity's pension plan and then fully settles the pension obligation with employees, both a settlement and curtailment have occurred.

In accounting for curtailments, a curtailment gain is computed as the difference between the amount of the PBO decrease as a result of the curtailment less any related unrecognized net loss. A curtailment loss, on the other hand, is the difference between the amount of the PBO increase less any related unrecognized gain. In computing curtailment gains and losses, any unrecognized net asset or liability at transition is also considered part of the unrecognized gain or loss.

### EXAMPLE

As a result of a termination of employees' services earlier than expected owing to the closing of a facility, the following occurred:

| Increase in projected benefit obligation from curtailment | \$600,000 |
|---|-----------|
| Unrecognized net gain                                     | (360,000) |
| Curtailment loss  | \$240,000 |

The same circumstances exist as in the prior situation; however, in this case:

| Decrease in projected benefit obligation from curtailment | \$(600,000) |
|---|-------------|
| Unrecognized net loss                                     | 360,000     |
| Curtailment gain  | \$(240,000) |

The amount of net periodic benefit cost should include the gain or loss recognized because of settlements or curtailments.

### Termination

If early retirement benefits are offered by an employer, are accepted by employees, and the amount of the benefits can be reasonably estimated, an expense provision should be recorded by debiting expense, crediting cash (for the down payment), and crediting a liability (for future payments). The amount accrued equals the down payment plus the discounted value of future employer payments. In addition, there should be a footnote describing the particulars of the agreement.

**Note:** A gain or loss arising from a settlement or curtailment of a pension plan or termination benefits that are directly associated with disposing of a business segment is included in the gain or loss on the disposal of the segment.

### EXAMPLE

ABC Company offers special termination benefits to employees that are accepted by the employees and can be reasonably estimated. The employees accept the offer on July 15, 2X13. The cost of the termination benefits includes a lump-sum payment of \$2,500,000, and the present value of expected future payments amounts to \$2,600,000. The entry that should be made for the accrual of termination benefits follows:

Retirement termination benefits expense Estimated liability for termination benefits 5,100,000

5,100,000

# **Trustee Reporting In a Defined Benefit Pension Plan**

ASC 960-205-10, *Plan Accounting—Defined Benefit Pension Plans: Presentation of Financial Statements*, specifies the accounting, reporting, and footnote disclosures required of the trustee of a defined benefit plan. The trustee

reports for the plan as a separate accounting and legal entity for which books of record are kept. Accrual accounting must be followed. The trustee is not required to prepare financial statements for the plan. However, if issued, the financial statements must be prepared in accordance with certain rules. The major purpose of reporting is to allow one to evaluate the adequacy of the plan to pay employees' benefits after retirement.

In the balance sheet, pension assets are netted against pension liabilities. Operating assets are expressed at book value. Investments are reported at market value. One asset presented is "Contributions Receivable Due from Employer."

The pension plan liability presented by the employer excludes the employees' accumulated benefits because in reality plan participants are equity holders and not creditors of the plan.

The trustee must make the following footnote disclosure:

- Description of the plan, including changes therein.
- Accounting and funding policies.
- Net assets available for benefits and changes therein during the year, such as from capital appreciation of equity and debt securities. (Capital appreciation or depreciation by source must be given.)
- Actuarial present value of accumulated plan benefits separately presented for that attributable to current employees, retirees, and beneficiaries. (Changes in the discounted value of accumulated benefits should also be disclosed.)

There may be an annuity contract whereby an insurance company agrees to provide specified pension benefits based on premiums received.

# **Postretirement Benefit Plans Other Than Pensions**

The major differences between pension benefits and postretirement benefits (e.g., health care, welfare) are:

- Pension benefits are usually funded, whereas postretirement benefits are not.
- Pension benefits are well-defined within a level dollar amount, and postretirement benefits are typically uncapped and show significant fluctuation.

Health care benefits are generally considered the most important and largest postretirement benefits. The accrual basis of accounting requires that the employer's obligation regarding the payment of future postretirement benefits be measured and the resulting cost be accrued during the employees' service period. Measuring future payments for health care benefits is more difficult than for pension plans. The level of health care costs is difficult to measure because of constant changes in medical technology, increased longevity of retirees and their dependents and beneficiaries, as well as new and unexpected illnesses that surface and are expensive to cure. In addition, many postretirement plans do not limit the amount of health care benefits that can be utilized by retirees.

## Accounting

As was noted, the accounting requirements for postretirement benefits other than pensions are similar to those of pension plans. However, there are several differences as well.

Postretirement benefits for current and future retirees represent deferred compensation. The time period the postretirement benefit cost accrues is referred to as the attribution period.

Accrual of postretirement benefits expense must be made of the benefits employees are entitled to receive based on services performed. In the case of a defined contribution plan, the cash funded for the year represents the postretirement benefits expense. However, in a defined benefit plan the amount funded and the expense will be different.

Postretirement benefits expense is based on actuarial calculations. Costs are expensed over the attribution period. It begins on the date of hire unless the plan's benefit formula states otherwise. It ends on the full eligibility date of the employee. This rule applies even if the employee is expected to render additional service. The full eligibility date is reached when the employee has rendered all the services necessary to earn all of the expected benefits. Even if the employee resigns after the full eligibility date, he or she is entitled to those benefits.

The expected postretirement benefit obligation is the actuarial present value as of a particular date of the benefits expected to be paid to employees, beneficiaries, or covered dependents. It is used to calculate service cost.

In accounting for postretirement benefits, the health care and other postretirement benefits for current and future retirees are accrued over a period of time known as the attribution period. This period represents the period of service during which the employee earns the postretirement benefit. It begins when the employee is hired and terminates when the employee terminates performing services and therefore is not eligible to receive benefits. The employee becomes vested for postretirement benefits on this date and is eligible to receive benefits.

New terms for postretirement benefits accounting include:

- Expected Postretirement Benefit Obligation (EPBO) This is the total benefits expected to be paid after retirement to employees and their dependents. It is disclosed at its actuarial present value and is used in computing postretirement expense.
- Accumulated Postretirement Benefit Obligation (APBO) This is the actuarial present value of future benefits related to employees' services rendered as of a particular date. The difference between the EPBO and APBO is that the APBO does not include active employees as yet ineligible for benefits. That is, before an employee achieves full eligibility, the APBO is only a portion of the EPBO. The APBO equals the EPBO for retirees and active employees who are fully eligible for benefits at the end of the attribution period.

The EPBO and APBO are illustrated in Exhibit 6.

### **Exhibit 6: EPBO and APBO**



# Components

Net periodic postretirement benefit cost is made up of the following components:

- Service cost. Actuarial present value of benefits applicable to services performed during the year. This increases postretirement expense.
- Interest cost. Interest on the accumulated postretirement benefit obligation at the beginning of the period, adjusted for benefit payments during the year. The interest cost increases postretirement expense.
- Actual return on plan assets. Return based on the fair value of plan assets at the beginning and end of the year, adjusted for contributions and benefit payments. Actual return typically reduces postretirement expense.
- Amortization expense on prior service cost. Expense provision for the current year due to amortization of prior service cost arising from adoption or amendment to the plan. Prior service cost applies to credited services before adoption or amendment and is accounted for over current and future years. The usual amortization period, starting with the amendment date, is the remaining service years to the full eligibility date. There should be amortization of any prior service cost or credit included in accumulated other comprehensive income.
- Gain or loss component. Gains and losses apply to changes in the amount of either the accumulated postretirement benefit obligation or plan assets resulting from actual experience being different from the actuarial assumptions. The gains and losses may also apply to changes in actuarial assumptions. Gains and losses may be realized (i.e., sale of securities) or unrealized.

Gains and losses that are not recognized immediately as a component of net periodic postretirement benefit cost are recognized as increases or decreases in other comprehensive income as they occur.

#### EXAMPLE

On January 1, 2X15, Barone Corporation adopts a health care benefit program and provides the following data:

| Service cost     | \$540 |
|------------------|-------|
| Contributions    | 380   |
| Benefit payments | 250   |

The service cost of \$540 increases postretirement expense and the accumulated postretirement benefit obligation (APBO). The contributions of \$380 reduce cash and increase plan assets. The benefit payments to retirees of \$250 reduce the APBO and plan assets.

|                          | Ba                   | arone Corp     | oration         |                |              |
|--------------------------|----------------------|----------------|-----------------|----------------|--------------|
|                          | Postr                | etirement      | Schedule 1      |                |              |
|                          | Journal Entries      | s (JE)         |                 | N              | lemo         |
|                          | Postretirement       |                | Postretirement  |                |              |
| Items                    | Expense              | Cash           | Asset/Liability | APBO           | Plan Assets  |
| Balance—1/1/2X13         |                      |                |                 |                |              |
| 1. Service cost          | 540 Dr.              |                |                 | 540 Cr.        |              |
| 2. Contributions         |                      | 380 Cr.        |                 |                | 380 [        |
| 3. Benefit payments      |                      |                |                 | 250 Dr.        | 250 (        |
| JE for 2X13              | <u>540</u> Dr.       | <u>380</u> Cr. | 160 Cr.         |                |              |
| Balance—12/31/2X13       |                      |                |                 |                |              |
|                          |                      |                | <u>160</u> Cr.  | <u>290</u> Cr. | <u>130</u> [ |
| The journal ent          | try for 12/31/2X13   | is:            |                 |                |              |
| Postretirement expense   | e                    |                |                 | 540            |              |
| Cash                     |                      |                |                 |                | 380          |
| Postretirement liab      | bility               |                |                 |                | 160          |
| The credit to p          | ostretirement liabil | lity can also  | be computed as: |                |              |
| Accumulated postretir    | ement benefit obli   | gation (cree   | dit)            |                | \$29         |
| Fair market value of pl  | an assets (debit)    |                |                 |                | 13           |
| Postretirement liability | 4                    |                |                 |                | \$16         |

The postretirement liability shows the plan is underfunded by \$160.

## **Plan Amendment**

A plan amendment that retroactively increases benefits increases the accumulated postretirement benefit obligation. The cost of the benefit improvement is recognized as a charge to other comprehensive income at the amendment date. On the other hand, a plan modification that retroactively reduces the benefits decreases the accumulated postretirement benefit obligation. The reduction in benefits is recognized as a corresponding credit (prior service credit) to other comprehensive income that is first used to reduce any remaining prior service cost included in accumulated other comprehensive income, which reduces any transition obligation remaining in accumulated other comprehensive income. The excess, if any, must not immediately be recognized, but should be amortized as a component of net periodic postretirement benefit cost.

# Corridor

As is the situation with pensions, employers amortize the gains and losses in accumulated other comprehensive income as an element of postretirement expense assuming, at the beginning of the year, the gains and losses exceed the corridor. In the case of postretirement plans, the corridor equals 10% of the greater of the accumulated postretirement benefit obligation or market-related value of plan assets.

The minimum amortization amount is the excess of the gains or losses over the corridor amount. The excess is amortized over the average remaining service life of active employees. The employer must recompute the amount of gains or losses in accumulated other comprehensive income each year and amortize the excess gains or losses.

### EXAMPLE

This is a continuation of the previous example for Barone Corporation for the year 2X13. The following data is provided for 2X13:

| Service cost  | \$140    |
|---|----------|
| Benefit payments  | \$ 50    |
| Contributions   | \$180    |
| Average remaining service period                        | 25 years |
| Actual return on plan assets                            | \$ 6     |
| Expected return on plan assets                          | \$ 8     |
| Interest rate   | 12%      |
| Increase in APBO due to change in actuarial assumptions | \$600    |
|   |          |

### Barone Corporation Postretirement Schedule 2 Journal Entries (JE)

Memo

|                     | Postretirement |         |                        | Postretirement  |                 | Plan           |
|---------------------|----------------|---------|------------------------|-----------------|-----------------|----------------|
| Items               | Expense        | Cash    | OCI <sup>*</sup> (G/L) | Asset/Liability | APBO            | Assets         |
| Balance—1/1/2X13    |                |         |                        | 160 Cr.         | 290 Cr.         | 130 Dr.        |
| 1. Service cost     | 140 Dr.        |         |                        |                 | 140 Cr.         |                |
| 2. Interest cost    | 35 Dr.         |         |                        |                 | 35 Cr.          |                |
| 3. Actual return    | 6 Cr.          |         |                        |                 |                 | 6 Dr.          |
| 4. Unexpected loss  | 2 Cr.          |         | 2 Dr.                  |                 |                 |                |
| 5. Contributions    |                | 180 Cr. |                        |                 |                 | 180 Dr.        |
| 6. Benefit          |                |         |                        |                 |                 |                |
| payments            |                |         |                        |                 | 50 Dr.          | 50 Cr.         |
| 7. Increase in APBO | (loss)         |         | 600 Dr.                |                 | 600 Cr.         |                |
| JE for 2X13         | 167 Dr.        | 180 Cr. | . 602 Dr.              | 589 Cr.         |                 |                |
| Accumulated OCI-1   | .2/31/2X13     |         | -0-                    |                 |                 |                |
| Balance—12/31/2X1   | .3             |         | <u>602</u> Dr.         | <u>749</u> Cr.  | <u>1015</u> Cr. | <u>266</u> Dr. |

#### Notes:

- 2. Interest cost = interest rate × APBO (beginning of year) =  $12\% \times $290 = $35$
- 4. Unexpected loss = expected return (actual return = \$8-\$6 = <u>\$2</u>

The unexpected loss of \$2 is deferred by debiting other comprehensive income (G/L) and crediting postretirement expense. Because of this adjustment, the expected return on plan assets is the amount actually used to compute postretirement expense.

The increase in the APBO because of a change in actuarial assumptions of \$600 is an unexpected loss which is debited to other comprehensive income (G/L) and credited to APBO.

The journal entry for postretirement expense for 2X13 follows:

| Postretirement expense           | 167 |     |
|----------------------------------|-----|-----|
| Other comprehensive income (G/L) | 602 |     |
| Cash                             |     | 180 |
| Postretirement liability         |     | 589 |

The postretirement liability at December 31, 2006, is \$749. This balance may also be calculated as follows:

| Accumulated postretirement benefit obligation (credit) | \$1,015 |
|--|---------|
| Fair market value of plan assets (debit)               | 266     |
| Postretirement liability                               | \$ 749  |

The amortization of net gain or loss in the year 2007 follows based on the corridor method:

| Accumulated other comprehensive income—beginning of year               | \$602    |
|--|----------|
| 10% of the greater of the APBO or market-related value of plan         |          |
| assets (10% × \$1,015)   | 102      |
| Amount to be amortized   | \$500    |
| Average remaining service period                                       | 25 years |
| Amortization of loss for 2X17 ( $$500 \div 25$ years) = $\frac{$20}{}$ |          |

### **Interim Periods**

With respect to interim periods, unless a business entity remeasures both its plan assets and benefit obligations during the fiscal year, the funded status it reports in its interim balance sheet shall be the same asset or liability recognized in the prior year-end balance sheet adjusted for (1) subsequent accruals of net periodic postretirement benefit cost excluding the amortization of amounts previously recognized in other comprehensive income (e.g., subsequent accruals of service cost, interest, and return on plan assets) and (2) contributions to a funded plan, or benefit payments. Upon remeasurement, a business shall adjust its balance sheet in a later interim period to consider the underfunded or overfunded status of the plan consistent with that measurement date. **Note:** Sometimes a company remeasures both plan assets and benefit obligations during the fiscal year. An example is when a major event takes place such as a plan amendment, curtailment, or settlement.

### Disclosures

Required footnote disclosures for postretirement benefits include:

- Description of the plan, including nature of benefits to be paid.
- □ Health care cost trend factors.
- □ Effect of a one-percentage-point increase in trend rates.
- □ Trend in compensation cost.
- Discount rate used to compute the accumulated postretirement benefit obligation. A company should consider return rates on high-quality fixed income securities in deriving the discount rate. The assumed discount rate should be reevaluated at each measurement date. In the event that the general level of interest rates rises or declines, the assumed discount rate will change in a similar way.
- □ Funding policy and status.
- Cost of providing termination benefits recognized during the period.
- Components of postretirement expense.
- Accumulated postretirement benefit obligation showing separately the amount applicable to retirees, other eligible participants, and other active participants.
- □ Fair market value of plan assets.
- □ Return on plan assets on an after-tax basis.

ASC 715-60-05-14, *Compensation—Retirement Benefits: Defined Benefit Plans— Other Postretirement*, requires that arrangements providing employee benefits that extend to postretirement periods should be recognized as a liability and related compensation costs for the expected future benefits.

# **Employers' Disclosures about Pension and Other Postretirement Benefits**

ASC 715-20-05, *Compensation—Retirement Benefits: Defined Benefit Plans—General*, standardizes disclosures for retiree benefits. In general, it revises and improves the effectiveness of current note disclosure requirements for employers' pensions and other retiree benefits. Recognition or accounting measurement issues are not addressed. In addition, the statement eliminates certain disclosures that have been deemed to be no longer useful by the FASB and requires additional information to enhance financial analysis.

ASC 715-20-05 mandates additional disclosures to those in the original Statement No. 132 with respect to assets, obligations, cash flows, and net periodic benefit cost of defined benefit pension plans and other defined postretirement plans. The required data should be furnished separately for pension plans and for other postretirement benefit plans. The additional disclosures include investment policy, plan obligations, cash flows, measurement dates, and components of net periodic benefit cost recognized during *interim periods*. Information must be provided for each major category of plan assets that the percentage of the fair value of total plan assets held as of the measurement date used for each statement of financial position presented. There should be a narrative description of investment strategies, including target allocation percentages for each major category of plan assets presented on a weighted-average basis as of the measurement dates of the latest statement of financial position. Also disclosed to evaluate the investment approach are risk management practices, investment objectives, and unallowable investments in the pension plan such as certain derivatives. The overall expected long-term rate-of-return-on-assets assumption should be disclosed. The benefits expected to be paid in each of the next five fiscal years, and in the total for the five fiscal years following, should be disclosed. Expected contributions to the plan should be noted. The rates of compensation increase should be presented.

ASC 715-60-05-8, *Compensation—Retirement Benefits: Defined Benefit Plans— Other Postretirement*, notes that sponsors of retiree health care benefits providing prescription drug benefits that are at least "actuarially equivalent" to those provided under Medicare Part D will be eligible for a federal subsidy. The subsidy should be included in measuring the cost of benefits attributable to current service benefits because it affects the sponsor's share of the plan's costs. The sponsor's service cost will be reduced by the subsidy. Because the subsidy is not taxable, there is *no* effect on temporary differences.

Plan sponsors should take Medicare into account when measuring a plan's APBO and net periodic postretirement benefit cost.

The following disclosures should be made:
- □ Amount by which APBO is reduced for the subsidy.
- **Effect** of subsidy in the measurement of net periodic postretirement benefit cost.

## **Pension Plan Financial Statements**

ASC 960-10-15, *Plan Accounting—Defined Benefit Pension Plans: Overall*, provides authoritative guidance in accounting and reporting for defined benefit pension plans. Additional guidance is provided by ASC 960-325-35, *Plan Accounting— Defined Benefit Pension Plans: Investments—Other* (AICPA Accounting Standards Executive Committee (AcSEC) Practice Bulletin, Reporting Separate Investment Fund Option Information of Defined Benefit Pension Plans). Other related information is given by:

- □ AICPA Industry Audit and Accounting Guide, *Audits of Employee Benefit Plans*.
- ASC 962-325, Plan Accounting—Defined Contribution Pension Plans: Investments.

A defined benefit plan pays specified or determinable retirement benefits to participants either on retirement or on the occurrence of certain events, such as death, disability, or termination of employment. Benefits are paid based on such factors as the participant's age, salary, and length of service. The employers' contributions in defined benefit plans are calculated actuarially based on specified benefits and may be periodically adjusted.

A defined contribution plan, unlike a defined benefit plan, maintains separate accounts for each participant, and the employer deposits a specified amount in each participant's account on a periodic basis. Defined contribution plans include 401(k) and 403(b) plans, employee stock ownership plans, profit sharing plans, and money purchase plans. Participants' benefits in a defined contribution plan are simply equal to the amount accumulated in their respective accounts. (**Note:** The information in this section applies only to defined benefit plans and not to defined contribution plans.)

Defined benefit plans are not required by ASC 960-205-45-1, *Plan Accounting — Defined Benefit Pension Plans: Presentation of Financial Statements,* to present financial statements. However, if the plan chooses to present financial statements, ASC 960-205-45-1 requires the following information:

- Net assets available to pay benefits.
- Changes in net assets available to pay benefits.
- □ Actuarial present value of accumulated plan benefits.
- **Factors affecting the change in actuarial present value of accumulated plan benefits.**

This information may be disclosed either in the statement or otherwise. Certain disclosures about the plan and its accounting policies are also required.

The primary purpose of these financial statements is to provide information to assess the present and future ability of pension plans to pay promised benefits. The following information should be disclosed in the financial statements:

□ Resources of the pension plan.

- □ Accumulated benefits.
- **Transactions affecting the plan's resources and benefits.**
- Additional information to clarify financial statement presentation and make it understandable.

Financial statements should be prepared as of the most recent year-end period. However, if the actuarial present value of accumulated plan benefits is unavailable or cannot be determined, beginning-of-period information may be presented. Use of an interim date is not allowed by GAAP. Approximations may be used to determine benefit information at the beginning or end of the fiscal year, if such information becomes available during the fiscal year, as long as the method used to estimate benefits produces results comparable to those required by ASC 960-205-45-1. Information about the actuarial present value of accumulated plan benefits and changes to the benefits may be presented as a separate statement or on the face of the statement of net assets or in notes to financial statements.

Comparative financial statements *must* be presented if the plan presents the actuarial present value of accumulated plan benefits as of the beginning of the plan period. Comparative financial statements are preferable even when they are not required. Information from several years may be more useful in assessing a plan's ability to pay benefits.

A statement of cash flows is not required of defined benefit plans. However, GAAP encourages its presentation when such information would be relevant in assessing a plan's ability to meet future obligations, such as when the assets lack liquidity or when financing is obtained for investments.

## **Net Assets Available for Benefits**

The resources available to pay benefits to participants are identified in the statement of net assets. The statement of net assets (as shown in Exhibit 7) is prepared using accrual accounting and includes information about a plan's assets and liabilities.

## Investments

Benefit plans own many types of investments, such as marketable securities, restricted or unregistered securities, real estate, mortgages, leases, interests in limited partnerships, repurchase agreements, futures and options, and contracts with insurance companies that do not subject the insurance company to risks arising from policyholders' mortality or morbidity. Such investments must be identified in reasonable detail and presented at fair value in the financial statements. Fair value is defined as the amount that the plan could reasonably expect to receive in an arm's-length sale between willing buyers and sellers when neither is compelled to buy or sell. In an active market, quoted market values may be used. If an active market does not exist, the fair value may be determined using another method, such as discounted cash flow or estimates from independent expert appraisers. The method used should be disclosed in the financial statements or its footnotes. Brokerage commissions and other selling costs, if significant, should be considered in determining the fair value.

| Statement of Net Assets A         | vailable for Benefits |              |
|-----------------------------------|-----------------------|--------------|
| For Year Ended Dece               | mber 31, 2X13         |              |
| ASSETS                            |                       |              |
| Investments (fair value):         |                       |              |
| Government securities             | \$ 1,000,000          |              |
| Corporate debt securities         | \$ 1,500,000          |              |
| Investment contracts              | \$ 2,300,000          |              |
| Common stock                      | \$ 4,500,000          |              |
| Preferred stock                   | \$ 1,700,000          |              |
| Mortgages                         | \$ (850,000)          |              |
| Real estate                       | \$ 1,200,000          |              |
|                                   | \$13,050,000          |              |
| Receivables (fair value)          |                       |              |
| Employees' contributions          | \$ (235,000)          |              |
| Employer's contributions          | \$ (354,000)          |              |
| Accrued interest                  | \$ (400,000)          |              |
| Accrued dividends                 | \$ 325,000            |              |
|                                   | \$ 1,314,000          |              |
| Cash                              | \$ 1,600,000          |              |
| Total assets                      |                       | \$15,964,000 |
| LIABILITIES                       |                       |              |
| Accounts payable                  | \$ 365,000            |              |
| Accrued expenses                  | \$ 475,000            |              |
| Total liabilities                 |                       | \$ 840,000   |
| NET ASSETS AVAILABLE FOR BENEFITS |                       | \$15,124,000 |

#### Exhibit 7: Statement of Net Assets Available for Benefits

## **Contributions Receivable**

Contributions receivable from participants, employers, and other sources should be recorded as of the reporting date and identified in the financial statements. All amounts that are formally committed to be paid to the plan as well as amounts that are legally or contractually due should be included in contributions receivable. Note, however, that an employer's accruing a liability to the pension plan does not, by itself, constitute sufficient basis for the plan to record a receivable. The following factors may provide evidence that the employer has formally committed to make a contribution to the plan:

- A formal approval, such as a resolution, by the employer's governing body to make a contribution.
- A consistent pattern of making payments after the pension plan's year-end in accordance with an established funding policy that attributes the payments to the preceding plan year.

□ A federal income tax deduction, taken by the employer for periods ending on or before the reporting date for the pension plan.

## **Insurance Contracts**

Insurance contracts generally have two characteristics. The purchaser of the insurance contract makes payments to the insurance company before the insured event. The insurance company generally does not know if, when, or how much will have to be paid on the insurance contract at the time the contract is made.

Insurance contracts are required by ASC 960-325-35-1, *Plan Accounting*— *Defined Benefit Pension Plans: Investments*—*Other*, to be presented in the same format as specified in annual reports filed with certain governmental agencies pursuant to Employee Retirement Income Security Act (ERISA). The contracts are presented either at fair value or at amounts determined by the insurance company. If an insurance plan is not subject to ERISA, it still presents its insurance contracts as if the plan was subject to the reporting requirements of ERISA. Insurance contracts that do not relate to policyholders' mortality or morbidity are investments, not insurance contracts. Mortality or morbidity risk exists if the insurance company is required to make payments or forgo required premiums contingent upon the death or disability (life insurance contracts) or continued survival of specific individuals or groups of individuals (annuity contracts). An investment contract, such as a guaranteed interest contract, generally provides for a set return on principal over a given time period.

## **Operating Assets**

Operating assets, such as property, plant, equipment, and leasehold improvements, are reported at historical costs less accumulated depreciation/amortization. If such assets are held for investment rather than in operations, they should be a reported at fair value with other investments.

## Liabilities

Liabilities for expenses related to investment purchases, trustee fees, and administrative fees should be accrued. Benefit obligations, however, should not be recorded by a defined benefit plan as a liability.

## Statement of Changes in Net Assets Available for Benefits

Significant changes in net assets available for benefits should be identified in the statement of changes in net assets available for benefits (see Exhibit 8). Investment income, excluding realized or unrealized gains or losses, should be disclosed separately in reasonable detail. It is not necessary to report separately interest, dividends, etc. Realized and unrealized gains or losses on investments with quoted market values are reported separately from investments presented at otherwise determined fair value. The net change in fair value for each significant class of investments should be reported. Cash and noncash contributions from the employer, participants, and others should be reported separately at fair value. The nature of noncash contributions should be described in footnotes. Benefits paid to participants, as well as administrative or operating expenses, should be identified and reported separately. Payment for insurance contracts that are excluded from the plan's assets, such as

allocated contracts, is reported separately. Dividend income from such contracts may be netted against the purchase price. Footnote disclosure should be made about the dividend income policy.

### **Actuarial Present Value of Plan Benefits**

Certain information about the actuarial present value of accumulated plan benefits of participants must be disclosed. ASC 960-205-45-1 requires disclosure of vested and nonvested benefits. Vested benefits are not contingent upon future services by employees. The total actuarial present value of accumulated plan benefits may be divided into three categories:

- 1. Vested benefits of participants currently receiving payments, including benefits due and payable as of the benefit information date.
- **2.** Vested benefits of other participants.
- **3.** Nonvested benefits.

#### Exhibit 8: Statement of Changes in Net Assets Available for Benefits

Statement of Changes in Net Assets Available for Benefits For Year Ended December 31, 20X2

| Investment Income                                  |              |
|--|--------------|
| Interest   | \$ 325,000   |
| Dividend   | 415,000      |
| Rental income                                      | 225,000      |
| Increases (decreases) in fair value of investments | 575,000      |
| Less: investment expenses                          | 125,000      |
|  | 1,415,000    |
| Contributions                                      |              |
| Employees' contributions                           | 685,000      |
| Employer's contributions                           | 1,200,000    |
|  | 1,885,000    |
| Benefits paid directly to participants             | (877,000)    |
| Annuity contracts purchased                        | (1,125,000)  |
| Administrative expenses                            | (195,000)    |
|  | (2,197,000)  |
| Net increase (decrease) in assets                  | 1,103,000    |
| Net assets available for benefits                  |              |
| Beginning of year                                  | 18,357,000   |
| End of year  | \$19,460,000 |
|  |              |

#### **Exhibit 9: Statement of Accumulated Plan Benefits**

| Statement of Accumulated Plan Benefits<br>For Year Ended December 31, 20X2 |             |
|--|-------------|
| Actuarial present value of vested benefits                                 |             |
| Participants currently receiving payments                                  | \$2,900,000 |
| Other participants   | 1,700,000   |
|  | 4,600,000   |
| Actuarial present value of nonvested benefits                              | 1,200,000   |
| Total actuarial present value of accumulated plan benefits                 | \$5,800,000 |
|  |             |

Benefit obligation information may be presented as a separate statement, such as that shown in Exhibit 9, on another statement, or in footnotes to financial statements. Benefit obligation information, however, is not a liability on the statement of net assets. It also should not be disclosed as supplementary information. It is preferable to present benefit obligation information as of year-end. If this is not feasible due to difficulties in making actuarial determinations, information may be presented as of the beginning of the plan's year. An interim date, however, may not be used.

ASC 960-205-45-1 assumes that the pension plan is a going concern and will continue to exist. Each actuarial assumption should be based on the plan's most likely expectations. The assumed rate of return should reflect the expected rate of return. It should be consistent with returns typically achieved on the types of assets held by the plan. The inflation rate assumed in determining the automatic cost-of-living adjustments should also be consistent with the assumed rates of return. Administrative expenses to be paid by the plan may be recognized using two methods. In the first method, the assumed rate of return may be adjusted to reflect administrative expenses (disclosure should be made about the adjustment). In the second, the administrative expenses may be assigned to the future and discounted to the benefit information date. The actuarial present value of accumulated plan benefits may alternatively be determined using the assumptions an insurance company would use if it were to issue a contract providing the same benefits to the same participants.

Pension plan benefits are usually based on years of service. Benefits can generally be determined through the provisions of the plan. However, if the benefits cannot be determined from the provisions, ASC 960-205-45-1 requires the use of the following formula to determine the benefits includable in vested benefits:

| Percentage of plan   |   | Number of years of service completed to the benefit information |
|----------------------|---|---|
| benefits accumulated |   | date  |
|                      | = |   |
|                      |   | Number of years of service that will have been completed when   |

the benefits will first be fully vested

For benefits not included in vested benefits, the following formula may be used:

Percentage of plan benefits accumulated Number of years of service completed to the benefit information date

Number of years of service upon anticipated separation from covered employment

Employees' history of earnings and service should be used to determine accumulated plan benefits. When benefits increase periodically, the employees' projected years of service should be used to determine death benefits, early retirement benefits, and disability benefits. Automatic benefit increases specified in the plan, even though subsequent to the benefit information date, should be recognized in determining accumulated plan benefits. Amendments adopted after the benefit information date do not affect the calculation of accumulated plan benefits. Benefits that will be provided by a contract should not be considered if the contract is excluded from the plan's financial statements. Social Security benefits may need to be determined in an integrated plan. It is assumed that the participant's pay will remain the same during his or her assumed service years. Scheduled or future changes in the wage base or benefit level are ignored under Social Security.

## **Changes in Actuarial Present Value of Plan Benefits**

All factors affecting the actuarial present value of accumulated plan benefits should be identified, if significant either individually or in the aggregate, in the financial statements or the footnotes (see Exhibit 10). Such changes include amendments to the plan, changes in the nature of the plan (such as a merger with another plan or a spin-off of a plan), and changes in actuarial assumptions. Other factors, such as the amount of accumulated benefits, change in the discount period, and the amount of benefits paid, should be disclosed.

#### Exhibit 10: Statement of Changes Affecting Actuarial Present Value of Plan Benefits

| Statement of Changes in Accumulated Plan Benefits                       |              |
|---|--------------|
| For Year Ended December 31, 20X2  |              |
| Actuarial present value of accumulated plan benefits, beginning of year | \$16,755,000 |
| Amendments to plan  | (425,000)    |
| Changes in actuarial assumptions  | 385,000      |
| Other factors   | 175,000      |
| Actuarial present value of accumulated plan benefits, end of year       | \$16,890,000 |

## **Required Disclosures**

GAAP requires defined benefit plans to make several disclosures. A plan should disclose its accounting policies, including assumptions and methods used to derive the fair value of investments and the reported value of insurance contracts. Disclosure should be made of significant assumptions and methods used to determine the

actuarial present value of accumulated plan benefits, including the rates of return, the inflation rate, and the retirement age of participants. A description of the provisions of pension plan vesting and benefit provisions should be presented. If that information is available elsewhere, making a reference to that published source is also acceptable. Amendments adopted on or before the latest benefit information date, if significant, should be described. A disclosure, including the effect on present value of accumulated plan benefits, is required if significant amendments are adopted after the benefit information date but before the plan's year-end. Disclosure is required of the order of priority of participants' claims to plan assets upon termination. If benefits are guaranteed by the Pension Benefit Guaranty Corporation (PBGC), the disclosure should include this information and a description of the applicability of any PBGC guaranty to recent plan amendments.

If the employer is absorbing significant plan administration costs, this should be disclosed. Any changes in the plan's funding policy, including the method for determining participants' contributions, should be described. For plans subject to ERISA, whether the minimum funding requirements have been met or if a waiver has been granted or is pending must be discussed. Insurance contracts that are excluded from the plan's assets, as well as the plan's policy concerning these assets, should be disclosed. Disclosure should be made of whether or not a favorable determination letter has been obtained for federal income tax purposes, and the plan's federal income tax status. Disclosure is also required of all investments that represent 5% or more of a plan's net assets available for benefits. A disclosure should be made of any significant real estate or other transactions between the plan and the sponsor, employer, or the employee organization. Finally, disclosure is required of all unusual or infrequent events that occur after the latest benefit information date, but before the financial statements are issued, if these events are significant and have an effect on the plan's present and future ability to pay benefits.

## **Employers' Accounting for Postemployment Benefits**

ASC 712-10-05-1 through 05-6, *Compensation—Nonretirement Postemployment Benefits: Overall*, provides authoritative guidance in accounting and reporting for postemployment benefits. It concerns benefits provided to former or inactive employees, their beneficiaries, and dependents after employment but before retirement. Former or inactive employees include individuals on disability and those that have been laid off. However, individuals on vacation or holiday or who are ill are not considered inactive.

*Postemployment* benefits differ from postretirement benefits. Post employment benefits may be in cash or in kind and include salary continuation benefits, supplemental unemployment benefits, severance benefits, disability-related benefits, job training and counseling benefits, life insurance benefits, and health care benefits.

Postemployment benefits that meet certain conditions require accrual. These conditions include the following:

- Benefits are related to services already performed.
- Benefit obligations vest or accumulate.
- D Payment of benefits is probable.
- The amount of benefits can be reasonably estimated.

Postemployment benefits that do not meet the conditions of ASC 710-10-05-5 should be accounted for in accordance with ASC 450, *Contingencies*, if:

- It is probable that an asset has been impaired or liability incurred at the date of the financial statements based on information available prior to the issuance of financial statements.
- The amount of loss can be reasonably estimated.

If the amount cannot be estimated in accordance with ASC 710-10-05-5, the financial statements should disclose this information.

ASC 715-30-55-81, *Compensation—Retirement Benefits: Defined Benefit Plans— Pension*, applies to early retirement programs, which create incentives for employees, within a specific age group, to transition from full-or part-time employment to retirement before legal retirement age.

## **Profit Sharing Plans**

A profit sharing plan may be discretionary (contributions are at the discretion of the board of directors) or nondiscretionary (contributions are based on a predetermined formula and depend on attaining a specified level of profit). In a discretionary plan, an accrual of expense should be made when set by the board of directors. The entry is to debit profit sharing expense and credit accrued profit sharing liability. In a nondiscretionary plan, an accrual is made when required under the terms of the plan.

| Торіс   | FASB Accounting<br>Standards<br>Codification (ASC)                                  | Original FASB<br>Standard                        | Corresponding<br>IASB Standard* | Differences between U.S.<br>GAAP and IFRS   |
|---|---|--|---------------------------------|---|
| Compensated<br>absences                                 | ASC 710-10-25 par.<br>1-8   | FAS No. 43 par.<br>6-16                          | IAS 19<br>par. 11-16            | No substantial differences  |
| Postemployment<br>benefits                              | ASC 712-10-05<br>par. 2-6<br>ASC 712-10-15 par.<br>3-5<br>ASC 712-10-25 par.<br>1-5 | FAS No. 112 par.<br>1-6<br>FAS No. 88<br>par. 15 | IAS 19<br>par. 132-140          | No substantial differences  |
| Discount rate for<br>projected<br>benefit<br>obligation | ASC 715-30-35<br>par. 24-25   | FAS No. 87<br>par. 44                            | IAS 19<br>par.78                | IFRS allows use of the interest<br>rate on government bonds in<br>countries lacking a developed<br>corporate bond market. |

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

| Past service cost   |  |                |   |  |
|---|--|----------------|---|--|
|   | ASC 715-30-35  | FAS No. 87     | IAS 19  | Under IFRS, the prior service  |
|   | Par. 10-11   | par. 24-25     | Par. 96   | cost amount is recognized as an<br>expense immediately IF the<br>benefits are immediately<br>vested.                         |
| Balance sheet   |  |                |   |  |
| numbers: one  | ASC 715-30-25  | FAS No. 87     | IAS 19  | Under current IFRS, the  |
| net number for<br>the difference<br>between PBO<br>and the pension<br>fund, with AOCI<br>shown<br>separately<br>Settlements and | par. 1,4   | Par. 35, 38    | Par. 54   | reported balance sheet number<br>is the sum of the PBO, the<br>pension fund, and AOCI associ-<br>ated with the pension plan. |
| curtailments  | ASC<br>715-30 and 715-60;<br>illustrations in ASC<br>715-30-55 | FAS No. 88     | IAS 19<br>Par. 109-115  | No substantial differences   |
| Disclosure  |  |                |   |  |
|   | ASC<br>715-29-50<br>715-30-50<br>715-60-50                     | FAS No. 132(R) | IAS 19<br>Par. 120-125  | No substantial differences   |
| Postretirement  |  |                |   |  |
| benefits other<br>than pensions   | ASC 715-60   | FAS No. 106    | In general, no dis-<br>tinction between<br>pensions and<br>other postretire-<br>ment benefits.<br>Guidance on<br>medical benefits<br>found in IAS 19<br>par.88-91 | Differences similar to the<br>differences in accounting for<br>pensions.   |

\* The accounting for various forms of compensation plans under IFRS is found in IAS 19 ("Employee Benefits") and IFRS 2 ("Share-Based Payment" ). IAS 19 addresses the accounting for a wide range of compensation elements wages, bonuses, postretirement benefits, and compensated absences. Both of these standards were recently amended, resulting in significant convergence between IFRS and U.S. GAAP in this area. And yet, the following differences exist.

- IFRS and U.S. GAAP separate pension plans into defined-contribution plans and defined-benefit plans. The accounting for defined-contribution plans is similar.
- For defined-benefit plans, both IFRS and U.S. GAAP recognize the net of the pension assets and liabilities on the balance sheet. Unlike U.S. GAAP, which recognizes prior service cost on the balance sheet (as an element of "Accumulated other comprehensive income"), IFRS does not recognize prior service costs on the balance sheet. Both GAAPs amortize prior service costs into income over the expected service lives of employees.
- Another difference in defined-benefit recognition is that under IFRS companies have the choice of
  recognizing actuarial gains and losses in income immediately or amortizing them over the expected
  remaining working lives of employees. U.S. GAAP does not permit choice; actuarial gains and losses (and
  prior service costs) are recognized in "Accumulated other comprehensive income" and amortized to
  income over remaining service lives.
- The IASB has recently issued a discussion paper on pensions proposing: (1) elimination of smoothing via the corridor approach, (2) a different presentation of pension costs in the income statement, and (3) a new category of pensions for accounting purposes—so-called "contribution-based promises."

## **Review Questions – Section 3**

16. In accounting for a settlement, GAAP provides that

- A. The settlement gain (loss) is measured by the change in the projected benefit obligation as a result of the transaction.
- B. The unrecognized transition net asset or obligation is included in the calculation of the maximum settlement gain or loss.
- C. A transaction must eliminate significant risks related to the obligation and the assets involved to constitute a settlement.
- D. The cost of a participation right reduces the maximum gain or loss subject to recognition in a settlement.

17. GAAP defines a curtailment as an event that significantly reduces the expected years of future service of present employees, or eliminates for a significant number of employees the accrual of defined benefits for some or all of their future service. Which statement is descriptive of a curtailment?

- A. It occurs only when a plan is terminated.
- B. If the amount of net curtailment loss is less than or equal to the sum of the interest cost and service cost components of net periodic pension cost, recognition is not mandatory.
- C. A curtailment gain resulting from a decrease in the projected benefit obligation is offset by any unrecognized transition net obligation.
- D. It involves recognition of unamortized prior service cost.

18. Postretirement benefits other than pensions (OPEB) may be defined in terms of monetary amounts (e.g., a given dollar value of life insurance) or benefit coverage (e.g., amounts per day for hospitalization). The amount of benefits depends on such factors as the benefit formula, the life expectancy of the retiree and any beneficiaries and covered dependents, and the frequency and significance of events (e.g., illnesses) requiring payments. The basic elements of accounting for OPEB include

- A. The expected postretirement benefit obligation (EPBO), which equals the accumulated postretirement benefit obligation (APBO) after the full eligibility date.
- B. The APBO, which is the actuarial present value at a given date of the benefits projected to be earned after the full eligibility date.
- C. Required recognition of a minimum liability for any excess of the EPBO over the APBO.
- D. The projected benefit obligation (PBO) and the vested benefit obligation (VBO).

19. The interest cost component of the postretirement benefit expense is the

- A. Increase in the EPBO because of the passage of time.
- B. Increase in the APBO because of the passage of time.
- C. Product of the market-related value of plan assets and the expected long-term rate of return on plan assets.
- D. Change in the APBO during the period.

#### 20. The service cost component of the postretirement benefit expense is

- A. Included in the APBO but not in the EPBO.
- B. Defined as the portion of the EPBO attributed to employee service for a period.
- C. Included in the EPBO but not the APBO.
- D. Measured using implicit and explicit actuarial assumptions and present value techniques.

## Glossary

Accumulated benefit obligation. The employer's pension obligation that is computed using the deferred compensation amount on all years of service performed by employees under the plan- both vested and nonvested- using current salary levels.

**Accumulated Postretirement Benefit Obligation (APBO)-** The actuarial present value of future benefits attributed to employee's services rendered to a particular date.

Actual return on plan assets. The return earned by the accumulated pension fund assets in a particular year. The return can be from interest, dividends, and realized and unrealized changes in the fair market value of the plan assets.

**Actuaries-** Individuals who are trained through a long and rigorous certification program to assign probabilities to future events and their financial effects.

**Amortization of unrecognized prior service cost.** Recognition of the cost of pension plan amendments that provide for an increase in benefits for employee service provided in prior years.

**Attribution period.** The period of service during which the employee earns postretirement benefits under the terms of the plan.

**Capitalization approach.** The approach for recording pension plans that represents the economic substance of the pension plan arrangement over its legal form.

**Contributory pension plan.** A pension plan where the employees bear part of the cost of the stated benefits or voluntarily make payments to increase their benefits.

**Corridor approach**. An approach used to limit the growth in the unrecognized Net Gain or Loss account by amortizing the accumulated balance in the account when it gets too large.

**Defined benefit plan.** A pension plan which defines the benefits that the employee will receive at the time of retirement.

**Defined contribution plan.** A pension plan where the employer agrees to contribute to a pension trust a certain sum each period based on a formula.

**Employer's pension obligation**. The deferred compensation obligation the employer has to its employees for their service under the terms of the pension plan.

**Expected Postretirement Benefit Obligation (EPBO).** The actuarial present value of a particular date of all benefits expected to be paid after retirement to employees and their dependents.

**Funded Pension Plan.** A pension plan where the employer (company) sets funds aside for future pension benefits by making payments to a funding agency that is responsible for accumulating the assets of the pension fund and for making payments to the recipients as the benefits become due.

**Interest on the liability.** The interest expense which accrues each year on the projected benefit obligation.

**Minimum liability.** An approach that requires immediate recognition of a liability (called the minimum liability) when the accumulated benefit obligation exceeds the fair value of plan assets.

Multiemployer pension plans. Pension plans sponsored by two or more different employers.

Noncapitalization approach. The approach for recording pension plans off the balance sheet.

**Noncontributory pension plan.** A pension plan where the employer bears the entire cost.

**Pension Benefit Guaranty Corporation.** A corporation created by ERISA whose purpose is to administer terminated pension plans and impose liens on the employer's assets for certain unfunded pension liabilities.

**Pension plan.** An arrangement whereby an employer provides benefits (payments) to the employees after they retire for services they provided while employed.

**Pension plan gain or loss.** The difference between the actual return and the expected return on plan assets and amortization of the unrecognized net gain or loss from previous periods.

**Projected benefit obligation.** The employer's pension obligation that is computed using the deferred compensation amount on all years of service performed by employees under the plan both vested and nonvested using future salaries.

**Qualified pension plan.** A pension plan in accordance with federal income tax requirements that permits deductibility of the employer's contributions to the pension fund and tax-free status of earnings from pension fund assets.

**Service cost.** The difference between (1) the APBO and (2) the fair value of the plan assets plus any accrued obligation or less any prepaid cost (asset) at the beginning of the year of the adoption of FASB Statement No. 106 (1990).

**Vested benefits.** Benefits that the employee is entitled to receive even if the employer renders no additional services under the plan.

Vested benefit obligation. The employer's pension obligation that is computed using current salary levels

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# **Appendix: Annual Report References**

Note: Skim through this section for more annual report references

## **Helmerich and Payne**

#### 2010 Annual Report

#### Note 11. Employee Benefit Plans

We maintain a domestic noncontributory defined benefit pension plan covering certain U.S. employees who meet certain age and service requirements. In July 2003, we revised the Helmerich & Payne, Inc. Employee Retirement Plan ("Pension Plan") to close the Pension Plan to new participants effective October 1, 2003, and reduce benefit accruals for current participants through September 30, 2006, at which time benefit accruals were discontinued and the Pension Plan was frozen.

The following table provides a reconciliation of the changes in the pension benefit obligations and fair value of Pension Plan assets over the two-year period ended September 30, 2010 and a statement of the funded status as of September 30, 2010 and 2009 (in thousands):

|  | 2010        | 2009                 |
|--|-------------|----------------------|
| Accumulated Benefit Obligation   | \$ 102,097  | \$ 89,996            |
| Changes in Projected Benefit Obligations   |             |                      |
| Projected benefit obligation at beginning of year                                | \$ 89,996   | \$ 69,475            |
| Interest cost  | 4,825       | 4,988                |
| Actuarial gain (loss)  | 11,482      | 18,977               |
| Benefits paid  | (4,206)     | (3,444)              |
| Projected benefit obligation at end of year                                      | \$ 102,097  | \$ 89,996            |
| Change in plan assets  |             |                      |
| Fair value of plan assets at beginning of year                                   | \$ 57,181   | \$ 59,605            |
| Actual return on plan assets   | 5,005       | 270                  |
| Employer contribution  | 3,408       | 750                  |
| Benefits paid  | (4,206)     | (3,444)              |
| Fair value of plan assets at end of year   | \$ 61,388   | \$ 57,181            |
| Funded status of the plan at end of year   | \$ (40 709) | \$ (32,815)          |
| September 30,  | 2010        | 2009                 |
| Amounts Recognized in the Consolidated Balance Sheets (in thousands):            |             |                      |
| Accrued liabilities  | \$ (181)    | \$ (40)              |
| Noncurrent liabilities-other   | (40,528)    | (32,775)             |
| Net amount recognized  | \$ (40,709) | \$ (32 <i>,</i> 815) |
| The amounts recognized in Accumulated Other Comprehensive Income at              |             |                      |
| September 30, 2010 and 2009, and not yet reflected in net periodic benefit cost, |             |                      |

| are as follows (in thousands): |             |             |
|--------------------------------|-------------|-------------|
| Net actuarial gain (loss)      | \$ (38,001) | \$ (29,267) |
| Prior service cost             | (2)         | (1)         |
| Total                          | \$ (38,003) | \$ (29,268) |

The amount recognized in Accumulated Other Comprehensive Income and not yet reflected in periodic benefit cost expected to be amortized in next year's periodic benefit cost is a net actuarial loss of \$3.0 million.

The weighted average assumptions used for the pension calculations were as follows:

| Years Ended September 30,                    | 2010 | 2009  | 20    | 008   |
|--|------|-------|-------|-------|
| Discount rate for net periodic benefit costs |      | 5.42% | 7.25% | 6.25% |
| Discount rate for year-end obligations       |      | 4.48% | 5.42% | 7.25% |
| Expected return on plan assets               |      | 8.00% | 8.00% | 8.00% |

We contributed \$3.4 million to the Pension Plan in fiscal 2010 to fund distributions in lieu of liquidating pension assets. We estimate contributing at least \$0.6 million in fiscal 2011 to meet the minimum contribution required by law and expect to make additional contributions to continue funding distributions. Additional contributions will be made if needed to fund unexpected distributions.

Components of the net periodic pension expense (benefit) were as follows (in thousands):

| Years Ended September 30,          | 2010     | 2009     | 2008       |
|------------------------------------|----------|----------|------------|
| Interest cost                      | \$ 4,825 | \$ 4,988 | \$ 4,919   |
| Expected return on plan assets     | (4,552)  | (4,643)  | (5,990)    |
| Amortization of prior service cost | -        | (1)      | -          |
| Recognized net actuarial loss      | 2,295    | 3        | 9          |
| Net pension expense (benefit)      | \$ 2,568 | \$ 347   | \$ (1,062) |

The following table reflects the expected benefits to be paid from the Pension Plan in each of the next five fiscal years and in the aggregate for the five years thereafter (in thousands).

Years Ended September 30,

| 2011     | 2012              | 2013     | 2014     | 2015     | 2016-2020 | Total     |
|----------|-------------------|----------|----------|----------|-----------|-----------|
| \$ 4,907 | \$ 6 <i>,</i> 035 | \$ 5,707 | \$ 5,613 | \$ 6,901 | \$36,170  | \$ 65,333 |

#### INVESTMENT STRATEGY AND ASSET ALLOCATION

Our investment policy and strategies are established with a long-term view in mind. The investment strategy is intended to help pay the cost of the Plan while providing adequate security to meet the benefits promised under the Plan. We maintain a diversified asset mix to minimize the risk of a material loss to the portfolio value that might occur from devaluation of any one investment. In determining the appropriate asset mix, our financial strength and ability to fund potential shortfalls are considered. Plan assets are invested in portfolios of

diversified public-market equity securities and fixed income securities. The plan holds no securities of the Company.

The expected long-term rate of return on plan assets is based on historical and projected rates of return for current and planned asset classes in the Plans' investment portfolio after analyzing historical experience and future expectations of the return and volatility of various asset classes.

## Coca-Cola

#### 2009 Annual Report

#### Note 10: Pension and Other Postretirement Benefit Plans

Our Company sponsors and/or contributes to pension and postretirement health care and life insurance benefit plans covering substantially all U.S. employees. We also sponsor nonqualified, unfunded defined benefit pension plans for certain associates. In addition, our Company and its subsidiaries have various pension plans and other forms of postretirement arrangements outside the United States.

#### **Obligations and Funded Status**

The following table sets forth the changes in benefit obligations and the fair value of plan assets for our benefit plans (in millions):

|   | Pension Benefits |         | Other Benefits |       |
|---|------------------|---------|----------------|-------|
|   | 2009             | 2008    | 2009           | 2008  |
| Benefit obligation at January 1, <sup>1</sup>   | \$3,618          | \$3,517 | \$430          | \$438 |
| Service cost                                    | 113              | 114     | 21             | 20    |
| Interest cost                                   | 213              | 205     | 29             | 26    |
| Foreign currency exchange rate changes          | 161              | (141)   | 3              | (3)   |
| Amendments                                      | 1                | (13)    | (1)            | -     |
| Actuarial loss (gain)                           | 89               | 125     | 23             | (220) |
| Benefits paid <sup>2</sup>                      | (206)            | (199)   | (30)           | (27)  |
| Business combinations                           | -                | -       | -              | -     |
| Settlements                                     | (2)              | (3)     | -              | -     |
| Curtailments                                    | -                | (1)     | (1)            | (6)   |
| Special termination benefits                    | 9                | 11      | 4              | -     |
| Other   | -                | 3       | 5              | 2     |
| Benefit obligation at December 31, <sup>1</sup> | \$3,996          | \$3,618 | \$483          | \$430 |
| Fair value of plan assets at January 1,         | \$2,290          | \$3,428 | \$175          | \$246 |
| Actual return on plan assets                    | 501              | (961)   | 20             | (47)  |
| Employer contributions                          | 269              | 96      | 1              | -     |
| Foreign currency exchange rate changes          | 121              | (118)   | -              | -     |
| Benefits paid                                   | (149)            | (155)   | (26)           | (25)  |

| Business combinations                     | -        | -                 | -             | -       |
|---|----------|-------------------|---------------|---------|
| Settlements                               | -        | (3)               | -             | -       |
| Other                                     | -        | 3                 | 3             | 1       |
| Fair value of plan assets at December 31, | \$3,032  | \$ 2 <i>,</i> 290 | \$ <b>173</b> | \$ 175  |
| Net liability recognized                  | \$ (964) | \$(1,328)         | \$(310)       | \$(255) |

<sup>1</sup> For pension benefit plans, the benefit obligation is the projected benefit obligation. For other benefit plans, the benefit obligation is the accumulated postretirement benefit obligation. The accumulated benefit obligation for our pension plans was \$3,657 million and \$3,209 million as of December 31, 2009 and 2008, respectively.

<sup>2</sup> Benefits paid to pension plan participants during 2009 and 2008 included approximately \$57 million and \$44 million, respectively, in payments related to unfunded pension plans that were paid from Company assets. Benefits paid to participants of other benefit plans during 2009 and 2008 included approximately \$4 million and \$2 million, respectively, that were paid from Company assets.

Pension and other benefit amounts recognized in our consolidated balance sheets are as follows (in millions):

|                          | Pension B | Pension Benefits |         |         |
|--------------------------|-----------|------------------|---------|---------|
| December 31,             | 2009      | 2008             | 2009    | 2008    |
| Noncurrent assets        | \$ 65     | \$ 37            | \$ -    | \$ -    |
| Current liability        | (42)      | (39)             | (1)     | -       |
| Long-term liability      | (987)     | (1,326)          | (309)   | (255)   |
| Net liability recognized | \$(964)   | \$(1,328)        | \$(310) | \$(255) |

In December 2008, the Company decided to modify the primary U.S. defined benefit pension plan. Beginning in 2010, the plan will have a two-part formula to determine pension benefits. The first part will retain the current final average pay structure, where service will freeze as of January 1, 2010, with pay escalating for the lesser of 10 years or until termination. The second part of the formula will be a cash balance account which will commence January 1, 2010, under which employees may receive credits based on age, service, pay and interest. The plan was also modified to allow lump sum distributions. These changes, as well as related changes to other U.S. plans, reduced pension obligations as of December 31, 2008, by approximately \$21 million. In addition, the U.S. retiree medical plan was amended to close the plan to new hires effective January 1, 2009.

In February and October of 2007, the Company amended its U.S. retiree medical plan to limit the Company's exposure to increases in retiree medical costs associated with current and future retirees. Based on the significance of the change in liability resulting from the amendments, we remeasured the assets and liabilities of the U.S. retiree medical plan effective February 28, 2007, and October 31, 2007. As a result of the remeasurements, the Company reduced its liabilities for the U.S. retiree medical plan by approximately \$435 million.

Certain of our pension plans have projected benefit obligations in excess of the fair value of plan assets. For these plans, the projected benefit obligations and the fair value of plan assets were as follows (in millions):

| December 31,                 | 2009    | 2008    |
|------------------------------|---------|---------|
| Projected benefit obligation | \$3,718 | \$3,416 |
| Fair value of plan assets    | 2,687   | 2,051   |

Certain of our pension plans have accumulated benefit obligations in excess of the fair value of plan assets. For these plans, the accumulated benefit obligations and the fair value of plan assets were as follows (in millions):

| December 31,                   | 2009    | 2008    |
|--------------------------------|---------|---------|
| Accumulated benefit obligation | \$3,139 | \$2,881 |
| Fair value of plan assets      | 2,418   | 1,885   |

#### **Pension Plan Assets**

The following table presents total pension assets for our U.S. and non-U.S. plans (in millions):

|  | U.S. Pla | ns      | Non-U.S. Pl | ans   |
|--|----------|---------|-------------|-------|
| December 31,                                     | 2009     | 2008    | 2009        | 2008  |
| Cash and cash equivalents                        | \$ 169   | \$ 70   | \$ 41       | \$ 28 |
| Equity securities:                               |          |         |             |       |
| U.Sbased companies                               | 744      | 561     | -           | 1     |
| International-based companies                    | 154      | 111     | 11          | 8     |
| Fixed income securities:                         |          |         |             |       |
| Government bonds                                 | 61       | 53      | 164         | 115   |
| Corporate bonds and debt securities              | 339      | 266     | 16          | 7     |
| Mutual, pooled and commingled funds <sup>1</sup> | 256      | 175     | 736         | 544   |
| Hedge funds/limited partnerships                 | 80       | 58      | -           | -     |
| Real estate                                      | 107      | 157     | 46          | 41    |
| Other  | 65       | 49      | 43          | 46    |
| Total pension plan assets <sup>2</sup>           | \$1,975  | \$1,500 | \$1,057     | \$790 |

<sup>1</sup> Mutual, pooled and commingled funds include investments in equity securities, fixed income securities and combinations of both. There are a significant number of mutual and pooled funds from which investors can choose. The selection of the type of fund is dictated by the specific investment objectives and needs of a given plan. These objectives and needs vary greatly between plans.

<sup>2</sup> Fair value disclosures related to our pension assets are included in Note 13. Fair value disclosures include, but are not limited to, the level within the fair value hierarchy on which the fair value measurements in their entirety fall, a reconciliation of the beginning and ending balances of Level 3 assets and information about the valuation techniques and inputs used to measure the fair value of our pension and other postretirement assets.

#### U.S. Pension Plan Investment Strategy

The Company utilizes the services of investment managers to actively manage the pension assets of our primary U.S. plan. We have established asset allocation targets and investment guidelines with each investment manager. Our asset allocation targets promote optimal expected return and volatility characteristics given the long-term time horizon for fulfilling the obligations of the plan. Selection of the targeted asset allocation for U.S. plan assets was based upon a review of the expected return and risk characteristics of each asset class, as well as the correlation of returns among asset classes. Our target allocation is a mix of approximately 60 percent equity investments, 30 percent fixed income investments and 10 percent in alternative investments. Furthermore, we believe that our target allocation will enable us to achieve the following long-term investment objectives:

- 1. Optimize the long-term return on plan assets at an acceptable level of risk;
- 2. Maintain a broad diversification across asset classes and among investment managers;
- 3. Maintain careful control of the risk level within each asset class; and
- **4.** Focus on a long-term return objective.

The guidelines that have been established with each investment manager provide parameters within which the investment managers agree to operate, including criteria that determine eligible and ineligible securities, diversification requirements and credit quality standards, where applicable. Unless exceptions have been approved, investment managers are prohibited from buying or selling commodities, futures or option contracts, as well as from short selling of securities. Additionally, investment managers agree to obtain written approval for deviations from stated investment style or guidelines. As of December 31, 2009, no investment manager was responsible for more than 10 percent of total U.S. plan assets.

Our target allocation of 60 percent equity investments is composed of approximately 33 percent domestic large-cap securities, 33 percent domestic small-cap securities, 19 percent international securities and 15 percent domestic mid-cap securities. Optimal returns through our investments in domestic large-cap securities are achieved through security selection and sector diversification. Investments in common stock of our Company accounted for approximately

25 percent of our investments in domestic large-cap securities and 5 percent of total plan assets. Our investments in domestic mid-cap and small-cap securities are expected to experience larger swings in their market value on a periodic basis. We select our investments in these asset classes based on capital appreciation potential. Our investments in international securities are intended to provide equity-like returns, while at the same time helping to diversify our overall equity investment portfolio.

Our target allocation of 30 percent fixed income investments are composed of 50 percent long-duration bonds and 50 percent high-yield bonds. Long-duration bonds provide a stable rate of return through investments in high-quality publicly traded debt securities. We diversify our investments in long-duration bonds to mitigate duration and credit exposure. High-yield bonds are investments in lower-rated and non-rated debt

securities, which generally produce higher returns compared to long-duration bonds. Investments in high-yield bonds also help diversify our fixed income portfolio.

In addition to investments in equity securities and fixed income investments, we have a target allocation of 10 percent in alternative investments. These alternative investments include hedge funds, private equity limited partnerships, leveraged buyout funds, international venture capital partnerships and real estate. The objective of investing in hedge funds, private equity limited partnerships, leveraged buyout funds and international venture capital partnerships is to provide a higher rate of return than that available from publicly traded equity securities. This objective is achieved through investing in limited partnerships that require capital for rapidly growing businesses. These investments are inherently illiquid and require a long-term perspective in evaluating investment performance. Investments in real estate have two objectives. First, investments in real estate help diversify our overall portfolio due to the low historical correlation with traditional stocks and fixed income investments. The secondary objective is to provide stable investment returns from income-producing properties.

#### Non-U.S. Pension Plan Investment Strategy

The majority of our international subsidiaries' pension plan assets are invested in mutual, pooled and commingled funds. As of December 31, 2009, mutual, pooled and commingled funds were composed of approximately 45 percent pooled equity securities, 35 percent pooled fixed income securities and 20 percent mutual and commingled funds. The investment strategies of our international subsidiaries differ greatly, and in some instances are influenced by local law. None of our pension plans outside the United States is individually significant for separate disclosure.

#### **Other Postretirement Benefit Plan Assets**

Plan assets associated with other benefits represent funding of the primary U.S. postretirement benefit plan. In late 2006, we established and contributed \$216 million to a U.S. Voluntary Employee Beneficiary Association (' 'VEBA''), a tax-qualified trust. The VEBA assets remain segregated from the primary U.S. pension master trust and are primarily invested in liquid assets due to the level of expected future benefit payments.

The following table presents total assets for our other postretirement benefit plans (in millions):

| December 31,                        | 2009  | 2008  |
|-------------------------------------|-------|-------|
| Cash and cash equivalents           | \$ 86 | \$108 |
| Equity securities:                  |       |       |
| U.Sbased companies                  | 62    | 47    |
| International-based companies       | 13    | 9     |
| Fixed income securities:            |       |       |
| Government bonds                    | 1     | 11    |
| Corporate bonds and debt securities | 5     | 4     |
| Mutual, pooled and commingled funds | 2     | 2     |
| Hedge funds/limited partnerships    | 1     | 1     |

| Real estate   | 2     | 2     |
|---|-------|-------|
| Other   | 1     | 1     |
| Total other postretirement benefit plan assets <sup>1</sup> | \$173 | \$175 |

<sup>1</sup> Fair value disclosures related to our other postretirement assets are included in Note 13. Fair value disclosures include, but are not limited to, the level within the fair value hierarchy on which the fair value measurements in their entirety fall, a reconciliation of the beginning and ending balances of Level 3 assets and information about the valuation techniques and inputs used to measure the fair value of our pension and other postretirement assets.

#### Components of Net Periodic Benefit Cost

Net periodic benefit cost for our pension and other postretirement benefit plans consisted of the following (in millions):

|   | Pens          | ion Benefits |        | Othe         | er Benefits |       |
|---|---------------|--------------|--------|--------------|-------------|-------|
| Year Ended December 31,                   | 2009          | 2008         | 2007   | 2009         | 2008        | 2007  |
| Service cost                              | <b>\$ 113</b> | \$ 114       | \$ 123 | <b>\$ 21</b> | \$ 20       | \$ 40 |
| Interest cost                             | 213           | 205          | 191    | 29           | 26          | 34    |
| Expected return on plan assets            | (214)         | (249)        | (231)  | (8)          | (20)        | (20)  |
| Amortization of prior service cost        |               |              |        |              |             |       |
| (credit)                                  | 5             | 10           | 7      | (61)         | (61)        | (42)  |
| Amortization of actuarial loss            | 86            | 10           | 18     | -            | -           | 1     |
| Net periodic benefit cost (credit)        | 203           | 90           | 108    | (19)         | (35)        | 13    |
| Settlement charge                         | 5             | 14           | 3      | -            | -           | -     |
| Curtailment charge (credit)               | 1             | -            | 2      | -            | (6)         | -     |
| Special termination benefits <sup>1</sup> | 9             | 11           | -      | 4            | -           | -     |
| Total cost (credit) recognized in the     |               |              |        |              |             |       |
| statements of income                      | \$ 218        | \$ 115       | \$ 113 | \$(15)       | \$(41)      | \$ 13 |

<sup>1</sup> The special termination benefits primarily relate to several restructuring plans, including the Company's ongoing productivity initiatives. Refer to Note 15 for additional information related to our restructuring plans and productivity initiatives.

The following table sets forth the changes in AOCI for our benefit plans (in millions, pretax):

|   | Pension Ben | efits   | Other Benef | its   |
|---|-------------|---------|-------------|-------|
| December 31,  | 2009        | 2008    | 2009        | 2008  |
| Beginning balance in AOCI                           | \$(1,389)   | \$(108) | \$189       | \$297 |
| Recognized prior service cost (credit)              | 6           | 10      | (61)        | (61)  |
| Recognized net actuarial loss (gain)                | 91          | 24      | -           | -     |
| Prior service credit (cost) arising in current year | (1)         | 13      | 1           | -     |

| Net actuarial (loss) gain arising in current year | 198       | (1,335)   | (11)  | (47)  |
|---|-----------|-----------|-------|-------|
| Translation gain (loss)                           | (24)      | 7         | -     | -     |
| Ending balance in AOCI                            | \$(1,119) | \$(1,389) | \$118 | \$189 |

The following table sets forth amounts in AOCI for our benefit plans (in millions, pretax):

| December 31,                | Pension Be | enefits    | Other Benefi | ts    |
|-----------------------------|------------|------------|--------------|-------|
|                             | 2009       | 2008       | 2009         | 2008  |
| Prior service credit (cost) | \$ (58)    | \$ (56)    | \$184        | \$244 |
| Net actuarial loss          | (1,061)    | (1,333)    | (66)         | (55)  |
| Ending balance in AOCI      | \$(1,119)  | \$ (1,389) | \$118        | \$189 |

Amounts in AOCI expected to be recognized as components of net periodic pension cost in 2010 are as follows (in millions, pretax):

|   | Pension Benefits | Other Benefits |  |
|---|------------------|----------------|--|
| Amortization of prior service cost (credit) | \$ 6             | \$(61)         |  |
| Amortization of actuarial loss              | 58               | 2              |  |
|   | \$64             | \$(59)         |  |

#### Assumptions

Certain weighted-average assumptions used in computing the benefit obligations are as follows:

|   | Pension | Benefits | Other Benefits |       |
|---|---------|----------|----------------|-------|
| December 31,                            | 2009    | 2008     | 2009           | 2008  |
| Discount rate                           | 53/4%   | 6%       | 53/4%          | 61/4% |
| Rate of increase in compensation levels | 33/4%   | 33/4%    | N/A            | N/A   |

Certain weighted-average assumptions used in computing net periodic benefit cost are as follows:

|   | Р     | ension Benefi | sion Benefits |       | Other Benefits |       |  |  |
|---|-------|---------------|---------------|-------|----------------|-------|--|--|
| December 31,  | 2009  | 2008          | 2007          | 2009  | 2008           | 2007  |  |  |
| Discount rate   | 6%    | 6%            | 51/2%         | 61/4% | 61/4%          | 6%    |  |  |
| Rate of increase in<br>compensation levels<br>Expected long-term rate | 33/4% | 41/4%         | 41/4%         | N/A   | N/A            | N/A   |  |  |
| of return on plan assets  | 8%    | 8%            | 73/4%         | 43/4% | 81/2%          | 81/2% |  |  |

The expected long-term rate of return assumption for U.S. pension plan assets is based upon the target asset allocation and is determined using forward-looking assumptions in the context of historical returns and volatilities for each asset class, as well as correlations among asset classes. We evaluate the rate of return assumption on an annual basis. The expected long-term rate of return assumption used in computing 2009 net

periodic pension cost for the U.S. plans was 8.5 percent. As of December 31, 2009, the 10-year annualized return on plan assets in the primary U.S. plan was 3.1 percent, the 15-year annualized return was 8.5 percent, and the annualized return since inception was 11.0 percent.

The assumed health care cost trend rates are as follows:

| December 31,  | 2009  | 2008  |
|---|-------|-------|
| Health care cost trend rate assumed for next year                           | 71/2% | 9%    |
| Rate to which the cost trend rate is assumed to decline (the ultimate trend |       |       |
| rate)   | 51/4% | 51/4% |
| Year that the rate reaches the ultimate trend rate                          | 2012  | 2012  |

During 2007, the Company amended its U.S. retiree medical plan to limit the Company's exposure to increases in retiree medical costs for both current and future retirees. As a result, the effects of a 1 percentage point change in the assumed health care cost trend rate would not be significant to the Company.

The discount rate assumptions used to account for pension and other postretirement benefit plans reflect the rates at which the benefit obligations could be effectively settled. Rates for each of our U.S. plans at December 31, 2009, were determined using a cash flow matching technique whereby the rates of a yield curve, developed from high-quality debt securities, were applied to the benefit obligations to determine the appropriate discount rate. For our non-U.S. plans, we base the discount rate on comparable indices within each of the non-U.S. countries. The rate of compensation increase assumption is determined by the Company based upon annual reviews. We review external data and our own historical trends for health care costs to determine the health care cost trend rate assumptions.

#### **Cash Flows**

Our estimated future benefit payments for funded and unfunded plans are as follows (in millions):

| Year Ended December 31,             | 2010  | 2011  | 2012  | 2013  | 2014  | 2015-2019 |
|-------------------------------------|-------|-------|-------|-------|-------|-----------|
| Pension benefit payments            | \$230 | \$232 | \$242 | \$252 | \$263 | \$1,541   |
| Other benefit payments <sup>1</sup> | 33    | 35    | 38    | 39    | 40    | 208       |
| Total estimated benefit payments    | \$263 | \$267 | \$280 | \$291 | \$303 | \$1,749   |

<sup>1</sup> The expected benefit payments for our other postretirement benefit plans are net of estimated federal subsidies expected to be received under the Medicare Prescription Drug, Improvement and Modernization Act of 2003. Federal subsidies are estimated to be approximately \$10 million annually for the period 2010-2014, and \$15 million annually for the period 2015-2019.

We anticipate making contributions in 2010 of approximately \$73 million, primarily to our non-U.S. pension plans.

#### **Defined Contribution Plans**

Our Company sponsors qualified defined contribution plans covering substantially all U.S. employees. Under the primary plan, we match 100 percent of participants' contributions up to a maximum of 3 percent of compensation, subject to certain limitations. Company costs related to the U.S. plans were approximately \$27 million, \$22 million and \$29 million in 2009, 2008 and 2007, respectively. We also sponsor defined contribution plans in certain locations outside the United States. Company costs associated with those plans were approximately \$36 million, \$20 million and \$25 million in 2009, 2008 and 2007, respectively.

# **Review Question Answers**

### **Review Questions - Section 1**

1. An employee's right to obtain pension benefits regardless of whether (s)he remains employed is the

- A. Incorrect. Prior service cost (PSC) relates to benefits for employee service provided prior to the adoption or amendment of a defined benefit pension plan.
- B. Incorrect. A defined benefit pension plan provides a defined pension benefit based on one or more factors, such as level of compensation, years of service, or age.
- C. **Correct.** Vested benefits (vested interest) are those earned pension benefits owed to an employee regardless of the employee's continued service. The employer's vested benefit obligation (VBO) is the actuarial present value of these vested benefits.
- D. Incorrect. A minimum liability must be recognized by an employer only if the ABO exceeds the fair value of the plan's assets.

#### 2. GAAP defines the projected benefit obligation (PBO) as the

- A. **Correct.** The projected benefit obligation (PBO) as of a date is equal to the actuarial present value of all benefits attributed by the pension benefit formula to employee service rendered prior to that date. The PBO is measured using assumptions as to future salary levels.
- B. Incorrect. The accumulated benefit obligation (ABO) is the present value of benefits accrued to date based on current salary levels.
- C. Incorrect. Prior service cost is the increase in retroactive benefits at the date of the amendment of the plan.
- D. Incorrect. The gain or loss component of net periodic pension cost is the amount of the adjustment necessary to reflect the difference between actual and estimated actuarial returns.

3. Visor Co. maintains a defined benefit pension plan for its employees. The service cost component of Visor's net periodic pension cost is measured using the

- A. Incorrect. The accumulated benefit obligation (ABO) is based on current salaries without assumptions about future salaries.
- B. Incorrect. Service cost includes nonvested benefits.
- C. **Correct.** The service cost is the actuarial present value of benefits attributed by the pension benefit formula to services rendered during the accounting period. It is a component of the projected benefit

obligation. The PBO as of a date is equal to the actuarial present value of all benefits attributed by the pension benefit formula to employee service rendered prior to that date. The PBO is measured using assumptions as to future salary levels.

- D. Incorrect. The expected return on plan assets is not a cost.
- 4. Under GAAP, attribution of pension costs to periods of employee service for a defined benefit pension plan
  - A. **Correct.** GAAP adopted a benefits approach based on the plan's benefit formula. Thus, GAAP follows the traditional accounting practice of looking to the terms of the agreement as a basis for recording an exchange. According to the FASB, the benefits approach better reflects how the costs and liabilities are incurred.
  - B. Incorrect. The benefit formula, not any actuarial cost method, is the basis for attribution.
  - C. Incorrect. The approach chosen by GAAP recognizes the present value of the benefits earned during the period. Because the present value of a dollar of pension benefits increases as retirement nears, the cost recognized does not remain level.
  - D. Incorrect. The cost is based on the benefits to be paid.

5. Joel Co. sponsors a defined benefit pension plan. The discount rate used by Joel to calculate the projected benefit obligation is determined by the: I) Expected Return on Plan Assets; or II) Actual Return on Plan Assets

- A. Incorrect. The expected return on plan assets equals the expected long-term rate of return times the market-related value of plan assets. The actual return on plan assets is based on their fair values at the beginning and end of the period. Neither determines the discount rates used to calculate the PBO.
- B. **Correct.** Assumed discount rates are used to measure the PBO. They reflect the rates at which benefit obligations can be settled. In estimating these rates, it is appropriate to consider current prices of annuity contracts that could be used to settle pension obligations as well as the rates on high-quality fixed investments. Neither the expected nor the actual return on plan assets determines the rate used to calculate the PBO.
- C. Incorrect. The rates used to calculate the PBO reflect the rates at which benefit obligations can be settled, not the rate used to calculate the expected return on plan assets.
- D. Incorrect. The actual return on plan assets is based on their fair values at the beginning and end of the period. However, the rate implicit in the actual return is unrelated to the rates at which the PBO could be settled.

6. On January 2, Year 1, Loch Co. established a noncontributory defined-benefit pension plan covering all employees and contributed \$400,000 to the plan. At December 31, Year 1, Loch determined that the Year 1 service and interest costs on the plan were \$720,000. The expected and the actual rate of return on plan assets

for Year 1 was 10%. Loch's pension expense has no other components. What amount should Loch report in its December 31, Year 1, balance sheet as liability for pension benefits?

- A. Correct. Service and interest costs and the return on plan assets are the entity's only components of pension expense in the plan's first year. The return on plan assets for Year 1 is \$40,000 (\$400,000 contributed to the plan x 10%). The pension expense is therefore \$680,000 (\$720,000 service and interest costs \$40,000 actual and expected return on plan assets). Because the actual and expected returns were the same, no gain or loss occurred in Year 1. The funded status of the plan is the difference between plan assets at fair value (\$400,000 + \$40,000 = \$440,000 at year-end) and the projected benefit obligation (\$720,000 service and interest costs, given no prior service cost or credit). Consequently, the liability recognized to record the unfunded status of the plan at year-end is \$280,000 (\$720,000 \$440,000).
- B. Incorrect. The amount of \$320,000 is the result if the return on plan assets is not added to plan assets at year-end.
- C. Incorrect. The amount of \$360,000 results when the return on plan assets is subtracted from plan assets at year-end.
- D. Incorrect. The amount of \$720,000 is the sum of service and interest costs.

7. The following information pertains to Seda Co.'s pension plan: Actuarial estimate of projected + benefit obligation at 1/1/2X12 =\$72,000; Assumed discount rate =10%; Service cost for 2X12 = \$18,000; Pension benefits paid during 2X12 = \$15,000. If no change in actuarial estimates occurred during 2X12, what was Seda's Projected benefit obligation (PBO) at December 31, 2X12?

- A. Incorrect. \$67,800 results from subtracting interest cost.
- B. Incorrect. \$75,000 excludes interest cost.
- C. Incorrect. \$79,200 ignores service costs and benefits paid.
- D. **Correct.** The ending balance of the PBO is the beginning balance plus the service cost and interest cost components, minus the benefits paid. The interest cost component is equal to the PBO's beginning balance times the discount rate. 72,000 + 18,000 + 7,200 15,000 = 82,200.

8. In computing pension expense, what amount should Gali use as actual return on plan assets if the following information pertains to Gali Co.'s defined benefit pension plan for Year 1: Fair value of plan assets, beginning of year = \$350,000; Fair value of plan assets, end of year = \$525,000; Employer contributions = \$110,000; Benefits paid = \$85,000.

- A. Incorrect. The amount of \$65,000 results when benefits paid to employees are not included.
- B. **Correct.** The actual return on plan assets is based on the fair value of plan assets at the beginning and end of the accounting period adjusted for contributions and payments during the period. The actual return for Gali is \$150,000 (\$525,000 \$350,000 \$110,000 + \$85,000).

- C. Incorrect. The amount of \$175,000 is the change in the fair value of plan assets without adjustment for contributions or benefits paid.
- D. Incorrect. The amount of \$260,000 does not deduct employer contributions.

9. Jan Corp. amended its defined benefit pension plan, granting a total credit of \$100,000 to four employees for services rendered prior to the plan's adoption. What is the amount of prior service cost amortization in the first year if the employees, A, B, C, and D, are expected to retire from the company as follows: "A" will retire after 3 years. "B" and "C" will retire after 5 years. "D" will retire after 7 years.

- A. Incorrect. Amortization of prior service cost is a component of pension expense.
- B. Incorrect. This figure is the amount assigned to each period of service by each employee.
- C. **Correct.** The cost of retroactive benefits is the increase in the PBO at the date of the amendment (debit OCI, net of tax, and credit pension liability or asset). It should be amortized by assigning an equal amount to each future period of service of each employee active at the date of the amendment who is expected to receive benefits under the plan. However, to reduce the burden of these allocation computations, any alternative amortization approach (e.g., averaging) that more rapidly reduces the unrecognized prior service cost is acceptable provided that it is applied consistently. The total service years to be rendered by the employees equals 20 (3 + 5 + 5 + 7). Hence, the amortization percentage for the first year is 20% (4/20), and the minimum amortization is \$20,000 (\$100,000 x 20%).
- D. Incorrect. The amount of \$25,000 results from assigning an equal amount to each employee.

### **Review Questions - Section 2**

10. On July 31, 2X12, Tern Co. amended its single employee defined benefit pension plan by granting increased benefits for services provided prior to 2X12. This prior service cost will be reflected in the financial statement(s) for

- A. Incorrect. Prior-service cost is not recognized as a prior period adjustment.
- B. Incorrect. Prior service cost is allocated to future service periods on a systematic and rational basis.
- C. Incorrect. Prior-service cost is not recognized as a prior period adjustment.
- D. **Correct.** The amortization of prior service cost (PSC) should be recognized as a component of pension cost during the future service periods of those employees active at the date of the plan amendment and who are expected to receive benefits under the plan. The cost of retroactive benefits is the increase in the PBO at the date of the amendment and should be amortized by assigning an equal amount to each future period of service of each employee active at the date of the amendment that is expected to receive benefits under the plan. However, to reduce the burden of these allocation computations, any alternative amortization approach (e.g., averaging) that more rapidly reduces the unrecognized prior service cost is acceptable provided it is applied consistently.

11. Prior service cost (PSC) is defined as the cost of benefit improvements attributable to plan participants' prior service pursuant to a plan amendment or a plan initiation that provides benefits in exchange for plan participants' prior service. The general rule is that prior service cost should be recognized in postretirement benefit expense

- A. Correct. The effect of a plan amendment on a participant's EPBO should be attributed to each year of service in that individual's attribution period (ordinarily from the date of hire or a later date specified by the benefit formula to the full eligibility date). This period may include years of service already rendered. The cost of benefit improvements for years of service already rendered is the increase in the APBO as a result of an amendment and measured at the date of the amendment. The general rule is that equal amounts of this cost should be assigned to each year of service remaining until the full eligibility date for each active plan participant at the date of the amendment who was not yet fully eligible.
- B. Incorrect. Prior service cost is deemed to provide economic benefits to the employer in future periods. Thus, recognition in full in the year of the amendment is prohibited.
- C. Incorrect. This treatment is appropriate only if all or almost all of the participants are fully eligible.
- D. Incorrect. It describes a pragmatic exception to the general rule. An alternative, consistently applied amortization method that more rapidly reduces unrecognized prior service cost is permitted to reduce complexity and detail.

12. The following information pertains to Lee Corp.'s defined benefit pension plan for Year 1: Service cost = \$160,000; Actual and expected gain on plan assets = \$35,000; Unexpected loss on plan assets related to a Year 1 disposal of a subsidiary = \$40,000; Amortization of prior service cost = \$5,000; Annual interest on pension obligations = \$50,000. What amount must Lee report as pension expense in its Year 1 income statement?

- A. Incorrect. The amount of \$250,000 results from adding, not subtracting, the expected gain on plan assets.
- B. Incorrect. The amount of \$220,000 includes the unexpected loss.
- C. Incorrect. The amount of \$210,000 includes the unexpected loss and subtracts instead of adding the amortization of prior service cost.
- D. **Correct.** The components of the required minimum pension expense are (1) service cost, (2) interest cost, (3) return on plan assets, (4) amortization of the net gain or loss recognized in accumulated OCI, and (5) amortization of any prior service cost or credit. Accordingly, the service cost, actual and expected gain on plan assets, interest cost, and amortization of prior service cost are included in the computation. Gains and losses arising from changes in the PBO or plan assets resulting from experience different from that assumed and from changes in assumptions about discount rates, life expectancies, etc., are not required to be included in the calculation of the required minimum pension expense when they occur. Accordingly, the unexpected Year 1 loss on plan assets is included in the gain or loss recognized in OCI (debit OCI, net of tax, and credit pension liability or asset). It must be amortized

beginning in Year 2. Pension expense is therefore \$180,000 (\$160,000 service cost - \$35,000 actual and expected return on plan assets + \$5,000 prior service cost amortization + \$50,000 interest cost).

13. Sheen Company maintains a defined benefit pension plan for its employees. For the fiscal year ended December 31, 2X13, it reported a pension liability. The liability is the amount by which the

- A. **Correct.** If pension expense is more than the cash funded (underfunded), a pension liability arises. On the other hand, if pension expense is less than the cash funded (over-funded), a pension asset arises.
- B. Incorrect. The VBO is not used to measure the extent of funding.
- C. Incorrect. The liability is the excess of pension expense over the cash funded.
- D. Incorrect. The factors used in measuring the fund status of the plan are the PBO and the fair value of plan assets.

14. In its December 31, Year 1, balance sheet, what amount should Kane report as the unfunded or overfunded projected benefit obligation (PBO) if the following is the only information pertaining to Kane Co.'s defined benefit pension plan? Pension asset, January 1, Year 1 = \$2,000; Service cost = \$19,000; Interest cost = \$38,000; Actual and expected return on plan assets = \$22,000; Amortization of prior service cost arising in a prior period = \$52,000; Employer contributions = \$40,000.

- A. Correct. The employer must recognize the funded status of the plan as the difference between the fair value of plan assets and the PBO. That amount is an asset or a liability. Current service cost and interest cost increase the PBO. The return on plan assets and contributions increase plan assets. Amortization of prior service cost arising in a prior period and recognized in accumulated OCI has no additional effect on the PBO or plan assets. However, it is a component of pension expense. The PBO was overfunded by \$2,000 on January 1. It increased during the year by \$57,000 (\$19,000 + \$38,000). Plan assets increased by \$62,000 (\$22,000 + \$40,000). Accordingly, the plan is overfunded by \$7,000 [\$2,000 + (\$62,000 \$57,000)] at year-end. Kane should recognize a pension asset of \$7,000 at year-end.
- B. Incorrect. The return on plan assets should be added to plan assets.
- C. Incorrect. The \$45,000 underfunded includes prior service cost amortization. Prior service cost that arose in a prior period was reflected in the asset or liability recognized for the funded status of the plan at the beginning of the year. When prior service cost arises, the entry is to debit OCI, net of tax, and credit pension liability.
- D. Incorrect. The \$52,000 underfunded is the prior service cost amortization.

15. A public entity that sponsors a defined benefit pension plan must disclose in the notes to its financial statements a reconciliation of

A. Incorrect. Vested and nonvested amounts need not be disclosed in the reconciliation statement, but service cost must be.

- B. Incorrect. The employer must disclose the full funded status of the plan. Accrued/prepaid pension cost measures the extent of the funding of net period pension cost.
- C. Incorrect. The ABO must be disclosed but not with the PBO.
- D. Correct. One of the required disclosures by a public entity with a defined benefit pension plan is a reconciliation of the beginning and ending balances of the PBO. It should display separately the effects during the period of (1) service cost, (2) interest cost, (3) participants' contributions, (4) actuarial gains and losses, (5) foreign currency exchange rate changes, (6) benefits paid, (7) plan amendments, (8) business combinations, (9) divestitures, (10) curtailments, (11) settlements, and (12) special termination benefits.

#### **Review Questions – Section 3**

16. In accounting for a settlement, GAAP provides that

- A. Incorrect. The maximum potential settlement gain or loss is the sum of any unrecognized net gain or loss plus any remaining transition net asset. The proportion of maximum gain or loss recognized in earnings equals the percentage reduction in the PBO.
- B. Incorrect. The transition net obligation is regarded as prior service cost, which is unaffected by a settlement.
- C. **Correct.** A settlement is defined as an irrevocable action that relieves the employer (or the plan) of the primary responsibility for a PBO and eliminates significant risks related to the pension obligation and the assets used to effect the settlement.
- D. Incorrect. The cost of the right to participate in the investment and other experience of an insurer from which annuities have been purchased to settle a pension obligation reduces the maximum gain (but not loss).

17. GAAP defines a curtailment as an event that significantly reduces the expected years of future service of present employees, or eliminates for a significant number of employees the accrual of defined benefits for some or all of their future service. Which statement is descriptive of a curtailment?

- A. Incorrect. Termination of a plan is not required for a curtailment.
- B. Incorrect. It is true of a settlement (not a curtailment) gain or loss. Recognition of a settlement gain or loss is required if the cost of all settlements in a year exceeds the sum of the interest cost and the service cost components.
- C. Incorrect. A curtailment gain is only offset by any unrecognized net loss.
- D. **Correct.** A curtailment net gain or loss equals the combined amounts of (1) the unrecognized prior service cost associated with years of service no longer expected to be rendered, and (2) the change in

the PBO that does not represent a reversal of previously unrecognized net gains or losses. For this purpose, unrecognized prior service cost includes any remaining unrecognized transition net obligation.

18. Postretirement benefits other than pensions (OPEB) may be defined in terms of monetary amounts (e.g., a given dollar value of life insurance) or benefit coverage (e.g., amounts per day for hospitalization). The amount of benefits depends on such factors as the benefit formula, the life expectancy of the retiree and any beneficiaries and covered dependents, and the frequency and significance of events (e.g., illnesses) requiring payments. The basic elements of accounting for OPEB include

- A. Correct. The EPBO for an employee is the actuarial present value at a given date of the OPEB expected to be paid. Its measurement depends on the anticipated amounts and timing of future benefits, the costs to be incurred to provide those benefits, and the extent the costs are shared by the employee and others (such as governmental programs). The APBO for an employee is the actuarial present value at a given date of the future benefits attributable to the employee's service as of that date. Unlike the calculation of the ABO, the determination of the APBO (as well as of the EPBO and service cost) implicitly includes the consideration of future salary progression to the extent the benefit formula defines benefits as a function of future compensation levels. The full eligibility date is reached when the employee has rendered all the services necessary to earn all of the benefits expected to be received by that employee. After the full eligibility date, the EPBO and APBO are equal. Prior to that date, the EPBO exceeds the APBO.
- B. Incorrect. The APBO for an employee is the actuarial present value at a given date of the future benefits attributable to the employee's service as of that date, not as of the full eligibility date.
- C. Incorrect. The fully funded status must be recognized in the balance sheet.
- D. Incorrect. These terms relate to pension accounting only, not OPEB.
- 19. The interest cost component of the postretirement benefit expense is the
  - A. Incorrect. Interest cost is a function of the APBO.
  - B. **Correct.** Interest cost reflects the change in the APBO during the period resulting solely from the passage of time. It equals the APBO at the beginning of the period times the assumed discount rate used in determining the present value of future cash outflows currently expected to be required to satisfy the obligation.
  - C. Incorrect. It defines the expected return on plan assets.
  - D. Incorrect. The change in the obligation reflects many factors, of which interest cost is one.

20. The service cost component of the postretirement benefit expense is

A. Incorrect. The service cost for the most recently completed period is included in the APBO as well as the EPBO.

- B. **Correct.** Service cost is defined as the actuarial present value of benefits attributed to services rendered by employees during the period. It is the portion of the EPBO attributed to service in the period and is not affected by the level of funding.
- C. Incorrect. The difference between the EPBO and APBO is that the APBO does not include active employees as yet ineligible for benefits. The service cost for the most recently completed period is included in both the APBO and the EPBO.
- D. Incorrect. GAAP requires the use of explicit (not implicit) assumptions, each of which is the best estimate of a particular event.