LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Distinguish between accounting for the employer’s pension plan and accounting for the pension fund.
2. Identify types of pension plans and their characteristics.
3. Explain measures for valuing the pension obligation.
4. Identify amounts reported in financial statements.
5. Use a worksheet for employer’s pension plan entries.
6. Explain the accounting for past service costs.
7. Explain the accounting for remeasurements.
8. Describe the requirements for reporting pension plans in financial statements.
9. Explain the accounting for other postretirement benefits.

Pension Peril

The effects of the financial crisis and the resultant economic downturn continue to ripple through global markets. Pension plans, both those sponsored by governments and private companies, are now feeling the effects. Consider the following actions by private companies to deal with the effects of the financial crisis.

- Britain’s largest employers shut down pension schemes at such a rapid rate in a recent year that if the current pace continues, traditional final salary pension benefits will soon become a thing of the past, a new study has concluded. It found that total service cost—the cost of providing the current year’s pension promises—had fallen by 15 percent as a result of the shutdown. The drop reflects a decline in the number of workers who are earning pension benefits. At that rate, final salary pensions in the private sector will no longer be available within six years.

- United Utilities (GBR) has made its defined benefit pension schemes less generous to employees as the United Kingdom’s biggest listed water company looks to cut costs in the face of a harsher regulatory regime. The utility announced that the move was backed by unions. The company said it had amended the terms of its defined benefit schemes to increase contributions made by members, while also increasing the retirement age and capping increases in pensionable salaries.

- Marks and Spencer plc (GBR) is planning to increase contributions to its pension plan (£800 million or $1.2 billion) to address a deficit in the plan assets relative to its pension obligations. The retailer insisted that it had no plans to close the final salary scheme to existing members. The clothing and food chain, which has 20,000 current members in its defined benefits scheme, said it would not be following the growing
band of companies—such as Wm Morrison Supermarkets plc (GBR) and Vodafone (GBR)—which are closing their final salary schemes to existing members.

Public sector pension plans are also not immune from these pension perils.

• France, in an effort to address its growing budget shortfall, unveiled pension reforms for public employees, which will raise the legal retirement age from 60 to 62 by 2018. Since this will meet less than half the €45 billion national pension fund shortfall by 2020, civil servants’ pension contributions will increase from 8.1 percent to 10.5 percent of pay.

• In Britain, the government is evaluating ways to address the pension gap between the public and private sector. More generous and much more widespread pension provisions boost public pay by a further 12 percent compared with the private sector. By requiring public sector employees to increase contributions by two percentage points, the government can raise £3 billion, or 0.2 percent of GDP. Broader reform of the system (e.g., increased retirement age) could phase in over time.

• Several state governments in the United States have cut or are considering cuts in pension benefits and requiring state employees to contribute more of the cost of their pension benefits.

Why are pension plans so vulnerable to the effects of the financial crisis? As you will learn in this chapter, pensions are a form of deferred compensation. When a pension is included in a salary and benefit package, employees may accept lower pay while working in exchange for pension benefits that will be paid in the future at retirement. Companies and governments must set aside assets to meet these future obligations. However, when economic times are tough, assets in the funds (shares and bonds) lose value, and companies and governments may not have the resources to contribute to the funds. As a result, a pension deficit arises and employees’ pensions may be in peril. Given the need for good information about the impact of these continuing pension perils on companies, both the IASB and the FASB have active projects to improve the accounting for pensions and other postretirement benefit plans.


PREVIEW OF CHAPTER 20

As our opening story indicates, the financial crisis has put pension plans in peril and the cost of retirement benefits is getting steep. For example, British Airways’ (GBR) pension and healthcare costs for retirees in a recent year totaled £149 million, or approximately £4 per passenger carried. British Air and many other companies are facing substantial pension and other postretirement expenses and obligations. In this chapter, we discuss the accounting issues related to these benefit plans. The content and organization of the chapter are as follows.

ACCOUNTING FOR PENSIONS AND POSTRETIREMENT BENEFITS

NATURE OF PENSION PLANS
• Defined contribution plan
• Defined benefit plan
• Role of actuaries

ACCOUNTING FOR PENSIONS
• Measures of the pension liability
• Net defined benefit obligation (asset)
• Changes in the defined benefit obligation (asset)
• Plan assets and actual return

USING A PENSION WORKSHEET
• 2011 entries and worksheet
• Past service cost
• 2012 entries and worksheet
• Remeasurements
• 2013 entries and worksheet

REPORTING PENSION PLANS IN FINANCIAL STATEMENTS
• Within the financial statements
• Within the notes to the financial statements
• Other postretirement benefits
NATURE OF PENSION PLANS

A **pension plan** is an arrangement whereby an employer provides benefits (payments) to retired employees for services they provided in their working years. Pension accounting may be divided and separately treated as **accounting for the employer** and **accounting for the pension fund**. The company or employer is the organization sponsoring the pension plan. It incurs the cost and makes contributions to the pension fund. The **fund or plan** is the entity that receives the contributions from the employer, administers the pension assets, and makes the benefit payments to the retired employees (pension recipients). Illustration 20-1 shows the three entities involved in a pension plan and indicates the flow of cash among them.

ILLUSTRATION 20-1
Flow of Cash among Pension Plan Participants

A pension plan is **funded** when the employer makes payments to a funding agency.\(^1\) That agency accumulates the assets of the pension fund and makes payments to the recipients as the benefits come due.

Some pension plans are **contributory**. In these, the employees bear part of the cost of the stated benefits or voluntarily make payments to increase their benefits. Other plans are **non-contributory**. In these plans, the employer bears the entire cost. In some countries, companies design their pension plans so as to take advantage of certain income tax benefits. Plans that offer tax benefits are often called **qualified pension plans**. They permit **deductibility of the employer’s contributions to the pension fund and tax-free status of earnings from pension fund assets**.

**The pension fund should be a separate legal and accounting entity.** The pension fund, as a separate entity, maintains a set of books and prepares financial statements. Maintaining records and preparing financial statements for the fund, an activity known as “accounting for employee benefit plans,” is not the subject of this chapter.\(^2\) Instead, this chapter explains the pension accounting and reporting problems of the employer as the sponsor of a pension plan.

The need to properly administer and account for pension funds becomes apparent when you understand the size of these funds. Listed in Illustration 20-2 are the pension fund assets and pension expenses of eight major companies. The two most common types of pension plans are **defined contribution plans** and **defined benefit plans**, and we look at each of them in the following sections.

---

\(^1\)When used as a verb, fund means to pay to a funding agency (as to fund future pension benefits or to fund pension cost). Used as a noun, it refers to assets accumulated in the hands of a funding agency (trustee) for the purpose of meeting pension benefits when they become due.

\(^2\)The IASB issued a separate standard covering the accounting and reporting for employee benefit plans. [1]
Defined Contribution Plan

In a defined contribution plan, the employer agrees to contribute to a pension trust a certain sum each period, based on a formula. This formula may consider such factors as age, length of employee service, employer’s profits, and compensation level. The plan defines only the employer’s contribution. It makes no promise regarding the ultimate benefits paid out to the employees.

The size of the pension benefits that the employee finally collects under the plan depends on several factors: the amounts originally contributed to the pension trust, the income accumulated in the trust, and the treatment of forfeitures of funds caused by early terminations of other employees. A company usually turns over to an independent third-party trustee the amounts originally contributed. The trustee, acting on behalf of the beneficiaries (the participating employees), assumes ownership of the pension assets and is accountable for their investment and distribution. The trust is separate and distinct from the employer.

The accounting for a defined contribution plan is straightforward. The employee gets the benefit of gain (or the risk of loss) from the assets contributed to the pension plan. The employer simply contributes each year based on the formula established in the plan. As a result, the employer’s annual cost (pension expense) is simply the amount that it is obligated to contribute to the pension trust. The employer reports a liability on its statement of financial position only if it does not make the contribution in full. The employer reports an asset only if it contributes more than the required amount and must disclose the amount of expense recorded for the defined contribution plan. [2]

Defined Benefit Plan

A defined benefit plan outlines the benefits that employees will receive when they retire. These benefits typically are a function of an employee’s years of service and of the compensation level in the years approaching retirement.

To meet the defined benefit commitments that will arise at retirement, a company must determine what the contribution should be today (a time value of money computation). Companies may use many different contribution approaches. However, the funding method should provide enough money at retirement to meet the benefits defined by the plan.

The employees are the beneficiaries of a defined contribution trust, but the employer is the beneficiary of a defined benefit trust. Under a defined benefit plan, the trust’s primary purpose is to safeguard and invest assets so that there will be enough to pay the employer’s obligation to the employees. In substance, the trust assets and liabilities belong to the employer. That is, as long as the plan continues, the employer is responsible for the payment of the defined benefits (without regard to what happens in the trust). The employer must make up any shortfall in the accumulated assets held by the trust. On the other hand, the employer can recapture any excess accumulated in the trust, either through reduced future funding or through a reversion of funds.

<table>
<thead>
<tr>
<th>Company (in millions)</th>
<th>Size of Pension Fund</th>
<th>2010 Pension Expense</th>
<th>Pension Expense as % of Pretax Income (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Airways (GBR)</td>
<td>£15,316</td>
<td>£49</td>
<td>28.82%</td>
</tr>
<tr>
<td>Nokia (FIN)</td>
<td>€1,494</td>
<td>€54</td>
<td>3.02</td>
</tr>
<tr>
<td>Siemens (DEU)</td>
<td>€20,965</td>
<td>€260</td>
<td>9.72</td>
</tr>
<tr>
<td>AB InBev (BEL)</td>
<td>€5,074</td>
<td>€217</td>
<td>2.82</td>
</tr>
<tr>
<td>BASF (DEU)</td>
<td>€15,226</td>
<td>€462</td>
<td>6.27</td>
</tr>
<tr>
<td>Cathay Pacific (CHN)</td>
<td>$8,077</td>
<td>$118</td>
<td>0.75</td>
</tr>
<tr>
<td>Dairy Farm International (CHN)</td>
<td>$174</td>
<td>$10</td>
<td>2.09</td>
</tr>
<tr>
<td>Unilever (GBR)</td>
<td>£15,968</td>
<td>£256</td>
<td>4.17</td>
</tr>
</tbody>
</table>

ILLUSTRATION 20-2
Pension Funds and Pension Expense

Objective 2
Identify types of pension plans and their characteristics.
Because a defined benefit plan specifies benefits in terms of uncertain future variables, a company must establish an appropriate funding pattern to ensure the availability of funds at retirement in order to provide the benefits promised. This funding level depends on a number of factors such as turnover, mortality, length of employee service, compensation levels, and interest earnings.

Employers are at risk with defined benefit plans because they must contribute enough to meet the cost of benefits that the plan defines. The expense recognized each period is not necessarily equal to the cash contribution. Similarly, the liability is controversial because its measurement and recognition relate to unknown future variables. Thus, the accounting issues related to this type of plan are complex. Our discussion in the following sections deals primarily with defined benefit plans.

### WHICH PLAN IS RIGHT FOR YOU?

Defined contribution plans are more popular with employers than defined benefit plans. One reason is that they are cheaper. Defined contribution plans often cost no more than 3 percent of payroll, whereas defined benefit plans can cost 5 to 6 percent of payroll.

In the late 1970s, approximately 15 million individuals had defined contribution plans; today over 62 million do. The following chart reflects this significant change. It shows the percentage of companies using various types of plans, based on a survey of approximately 150 CFOs and managing corporate directors.

#### Types of Retirement Plans Sponsored by Large Multinational Companies

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined Contribution Plan</td>
<td>48%</td>
</tr>
<tr>
<td>Defined Benefit Plan</td>
<td>34%</td>
</tr>
<tr>
<td>Profit Sharing</td>
<td>91%</td>
</tr>
</tbody>
</table>


Although many companies are changing to defined contribution plans, the number of existing defined benefit plans and benefits paid from these plans are substantial.

### The Role of Actuaries in Pension Accounting

The problems associated with pension plans involve complicated mathematical considerations. Therefore, companies engage actuaries to ensure that a pension plan is appropriate for the employee group covered. Actuaries are individuals trained through a long and rigorous certification program to assign probabilities to future events and

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3In many cases, companies offer a defined contribution plan in combination with a defined benefit plan.

4An actuary’s primary purpose is to ensure that the company has established an appropriate funding pattern to meet its pension obligations. This computation involves developing a set of assumptions and continued monitoring of these assumptions to ensure their realism. IFRS encourages, but does not require, companies to use actuaries in the measurement of the pension amounts. [3] That the general public has little understanding of what an actuary does is illustrated by the following excerpt from the Wall Street Journal: “A polling organization once asked the general public what an actuary was, and received among its more coherent responses the opinion that it was a place where you put dead actors.”
their financial effects. The insurance industry employs actuaries to assess risks and to advise on the setting of premiums and other aspects of insurance policies. Employers rely heavily on actuaries for assistance in developing, implementing, and funding pension funds.

Actuaries make predictions (called actuarial assumptions) of mortality rates, employee turnover, interest and earnings rates, early retirement frequency, future salaries, and any other factors necessary to operate a pension plan. They also compute the various pension measures that affect the financial statements, such as the pension obligation, the annual cost of servicing the plan, and the cost of amendments to the plan. In summary, accounting for defined benefit pension plans relies heavily upon information and measurements provided by actuaries.

ACCOUNTING FOR PENSIONS

In accounting for a company’s pension plan, two questions arise: (1) What is the pension obligation that a company should report in the financial statements? (2) What is the pension expense for the period? Attempting to answer the first question has produced much controversy.

Measures of the Pension Liability

Most agree that an employer’s pension obligation is the deferred compensation obligation it has to its employees for their service under the terms of the pension plan. Measuring that obligation is not so simple, though, because there are alternative ways of measuring it.

One measure of the pension obligation is to base it only on the benefits vested to the employees. Vested benefits are those that the employee is entitled to receive even if he or she renders no additional services to the company. Most pension plans require a certain minimum number of years of service to the employer before an employee achieves vested benefits status. Companies compute the vested benefit obligation using only vested benefits, at current salary levels.

Another way to measure the obligation uses both vested and non-vested years of service. On this basis, the company computes the deferred compensation amount on all years of employees’ service—both vested and non-vested—using current salary levels. This measurement of the pension obligation is called the accumulated benefit obligation.

A third measure bases the deferred compensation amount on both vested and non-vested service using future salaries. This measurement of the pension obligation is called the defined benefit obligation. Because future salaries are expected to be higher than current salaries, this approach results in the largest measurement of the pension obligation.

The choice between these measures is critical. The choice affects the amount of a company’s pension liability and the annual pension expense reported. The diagram in Illustration 20-3 (page 1072) presents the differences in these three measurements.

Which of these alternative measures of the pension liability does the profession favor? The profession adopted the defined benefit obligation—the present value (without deducting any plan assets) of the expected future payments required to settle the obligation resulting from employee service in current and prior periods. Some in favor of the defined benefit obligation contend that a promise by an employer

[4] When we use the term “present value of benefits” throughout this chapter, we really mean the actuarial present value of benefits. Actuarial present value is the amount payable adjusted to reflect the time value of money and the probability of payment (by means of decrements for events such as death, disability, withdrawals, or retirement) between the present date and the expected date of payment. For simplicity, though, we use the term “present value” instead of “actuarial present value” in our discussion.
to pay benefits based on a percentage of the employees’ future salaries is far greater than a promise to pay a percentage of their current salary, and such a difference should be reflected in the pension liability and pension expense.

Moreover, companies discount to present value the estimated future benefits to be paid. Minor changes in the interest rate used to discount pension benefits can dramatically affect the measurement of the employer’s obligation. For example, a 1 percent decrease in the discount rate can increase pension liabilities 15 percent. Accounting rules require that, at each measurement date, a company must determine the appropriate discount rate used to measure the pension liability, based on current interest rates. [5]

**Net Defined Benefit Obligation (Asset)**

The net defined benefit liability (asset) (also referred to as the funded status) is the deficit or surplus related to a defined pension plan. The deficit or surplus is measured as follows.

\[
\text{Deficit or Surplus} = \text{Defined benefit obligation} - \text{Fair value of plan assets (if any)}
\]

The deficit or surplus is often referred to as the funded status of the plan.

If the defined benefit obligation is greater than the plan assets, the pension plan has a deficit. Conversely, if the defined pension obligation is less than the plan assets, the pension plan has a surplus. Illustration 20-4 shows these relationships.

**ILLUSTRATION 20-4**

Presentation of Funded Status

<table>
<thead>
<tr>
<th></th>
<th>Deficit</th>
<th>Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Defined benefit obligation</td>
<td>Defined benefit obligation</td>
</tr>
<tr>
<td></td>
<td>Plan assets</td>
<td>Plan assets</td>
</tr>
<tr>
<td></td>
<td>€1,000,000</td>
<td>€150,000</td>
</tr>
<tr>
<td></td>
<td>900,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Net defined benefit obligation</td>
<td>€100,000</td>
<td>Net defined benefit asset</td>
</tr>
</tbody>
</table>

The net defined benefit obligation (asset) is often referred to simply as the pension liability or the pension asset on the statement of financial position.

As indicated, companies should report either a pension asset or pension liability related to a pension plan on the statement of financial position (often referred to as the
net approach). To illustrate, assume that at year-end, Acer Company has a defined pension obligation of €4,000,000 and plan assets of €3,700,000. In this case, Acer reports €300,000 (€4,000,000 – €3,700,000) as a pension liability on its statement of financial position.

Some believe that companies should report separately both the defined benefit obligation and the plan assets on the statement of financial position. This approach (often referred to as the gross approach) would report Acer’s defined benefit obligation of €4,000,000 and its plan assets of €3,700,000 on the statement of financial position. The IASB disagrees, indicating that offsetting these amounts is consistent with its standard on when assets and liabilities should be netted.6

**Reporting Changes in the Defined Benefit Obligation (Asset)**

The IASB requires that all changes in the defined benefit obligation and plan assets in the current period be recognized in comprehensive income. The Board believes that immediate recognition of the effects of these changes in the statement of comprehensive income provides the most understandable and useful information to financial statement users. The IASB requires that companies report changes arising from different elements of pension liabilities and assets in different sections of the statement of comprehensive income, depending on their nature.

In the past, companies often reported only a single pension expense number in the comprehensive income statement. Providing additional segmentation of the components of pension cost provides additional transparency about the nature of these costs. The three components are as follows.

- **Service cost.** Service cost is either current service cost or past service cost. Current service cost is the increase in the present value of the defined benefit obligation from employee service in the current period. Past service cost is the change in the present value of the defined benefit obligation for employee service for prior periods—generally resulting from a plan amendment (e.g., changes to the plan). This component is reported in the statement of comprehensive income in the operating section of the statement and affects net income.

- **Net interest.** Net interest is computed by multiplying the discount rate by the funded status of the plan (defined benefit obligation minus plan assets). If the plan has a net defined benefit obligation at the end of the period, the company reports interest expense. Conversely if it has a net defined benefit asset, it reports interest revenue. This approach is justified on the basis of its simplicity and that any financing costs should be based on the funded status of the plan. This amount is often shown below the operating section of the income statement in the financing section and affects net income.

- **Remeasurements.** Remeasurements are gains and losses related to the defined benefit obligation (changes in discount rate or other actuarial assumptions) and gains or losses on the fair value of the plan assets (actual rate of return less interest revenue included in the finance component). This component is reported in other comprehensive income, net of tax. These remeasurement gains or losses therefore affect comprehensive income but not net income.

Illustration 20-5 (page 1074) shows the components of changes in the pension liability (asset) and their placement on the statement of comprehensive income.

As indicated in Illustration 20-5, service cost and net interest are reported in net income. We discuss determination of each of these components in the following section. Remeasurements, which are reported in other comprehensive income, are discussed in a later section.

6IAS 32 states that a financial asset and a financial liability should be offset and the net amount reported in the statement of financial position when a company (a) has a legally enforceable right to set off the recognized amounts and (b) intends either to settle on a net basis, or to realize the asset and settle it simultaneously. [6]
ILLUSTRATION 20-5
Reporting Changes in the Pension Obligation
(Assets)

Service Cost
To determine current service cost and the related increase in the defined benefit obligation, companies must:

1. Apply an actuarial valuation method.
2. Assign benefits to period of service.
3. Make actuarial assumptions.\(^7\)

In applying an actuarial valuation method, the IASB concluded that companies must consider future compensation levels in measuring the present obligation and periodic pension expense if the plan benefit formula incorporates them. In other words, the present obligation resulting from a promise to pay a benefit of 1 percent of an employee’s final pay differs from the promise to pay 1 percent of current pay. To overlook this fact is to ignore an important aspect of pension expense. Thus, the Board adopts the projected unit credit method (often referred to as the benefits/years-of-service method), which determines pension expense based on future salary levels.

Some object to this determination, arguing that a company should have more freedom to select an expense recognition pattern. Others believe that incorporating future salary increases into current pension expense is accounting for events that have not yet happened. They argue that if a company terminates the plan today, it pays only liabilities for accumulated benefits. Nevertheless, the IASB indicates that the defined benefit obligation provides a more realistic measure of the employer’s obligation under the plan on a going concern basis and, therefore, companies should use it as the basis for determining service cost.

The assignment of benefits to periods of service is based on the actuarial valuation method. The actuary then allocates the cost of the pension benefits over the expected service life of the company’s employees. In determining the proper service cost for a period, the actuary makes actuarial assumptions related to such factors as mortality; rates of employee turnover, disability, and early retirement; discount rate; benefit levels; and future salary levels. While IAS 19 does not require use of an actuary, given the

\(^7\)As indicated earlier, service cost is comprised of current and past service cost. Determination of past service cost is based on the same actuarial valuation model as that used for current service cost. We discuss recognition of past service cost in a later section.
complexity of these estimates, just about all companies rely on an actuary to determine service cost and related other defined benefit measures.

**Net Interest**

In computing net interest, companies assume that the discount rate, the net defined benefit obligation, and the pension asset are determined at the beginning of the year.\(^8\) The discount rate is based on the yields of high-quality bonds with terms consistent with the company’s pension obligation. Net interest is then computed as indicated in the following equation.

\[
\text{Net Interest} = (\text{Defined Benefit Obligation} \times \text{Discount Rate}) - (\text{Plan Assets} \times \text{Discount Rate})
\]

That is, net interest is determined by multiplying the net defined pension obligation (asset) by the discount rate.\(^9\)

Because payment of the pension obligation is deferred, companies record the pension liability on a discounted basis. As a result, the liability accrues interest over the service life of the employee (passage of time), which is essentially interest expense (interest on the liability). Similarly, companies earn a return on their plan assets. That is, a company assumes that it earns interest based on multiplying the discount rate by the plan assets. While the IASB recognizes that the actual return on plan assets may differ from the assumed interest revenue computed, it believes that the change in plan assets can be divided into an amount that arises from the passage of time and amounts that arise from other changes. As we discuss in the next section, changes not related to the passage of time are reported in other comprehensive income as remeasurements. Thus, the growth in the plan assets should mirror the growth in the defined benefit obligation. In other words, the assumed interest revenue on the plan assets based on the passage of time offsets the interest expense on the defined benefit obligation.

In summary, pension expense is comprised of two components: (1) service cost and (2) net interest. Companies report each of these components in the statement of comprehensive income. In some cases, companies may choose to report these components in one section of the statement of comprehensive income and report total pension expense. Other companies may choose to report the service cost component in operating income and the net interest in a separate section related to financing.\(^9\)

**Plan Assets and Actual Return**

Pension plan assets are usually investments in shares, bonds, other securities, and real estate that a company holds to earn a reasonable rate of return. Plan assets are reported at fair value. Companies generally hold these assets in a separate legal entity (a pension fund) that exists only to administer the employee benefit plan. These assets held by the pension fund are therefore not available to the company’s own creditors (even in bankruptcy). Employer contributions and the actual return on plan assets increase pension plan assets. Actual return on plan assets is the increase in the pension fund assets arising from interest, dividends, and realized and unrealized changes in the fair value of the plan. Benefits paid to retired employees decrease plan assets.

To illustrate, assume that Hasbro Company has pension plan assets of €4,200,000 on January 1, 2013. During 2013, Hasbro contributed €300,000 to the plan and paid out retirement benefits of €250,000. Its actual return on plan assets was €210,000 for the

---

\(^8\)The IASB indicates that if the beginning of the year amount changes materially (due to contributions to or payments out of the plan), an adjustment to the beginning balances should be made. [8] For homework purposes, unless information indicates that balances have changed materially, use the beginning of the year balances.

\(^9\)The IASB does not provide guidance on which of these two approaches is preferred. [10] For homework purposes, report pension expense as a single total in income from operations in the statement of comprehensive income.
year. Hasbro’s plan assets at December 31, 2013, are €4,460,000, computed as shown in Illustration 20-6.

ILLUSTRATION 20-6  Determination of Pension Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets, January 1, 2013</td>
<td>€4,200,000</td>
</tr>
<tr>
<td>Contributions by Hasbro to plan</td>
<td>300,000</td>
</tr>
<tr>
<td>Actual return</td>
<td>210,000</td>
</tr>
<tr>
<td>Benefits paid to employees</td>
<td>(250,000)</td>
</tr>
<tr>
<td>Plan assets, December 31, 2013</td>
<td>€4,460,000</td>
</tr>
</tbody>
</table>

In some cases, companies compute that actual return by adjusting the change in plan assets for the effect of contributions during the year and benefits paid during the year. The equation in Illustration 20-7, or a variation thereof, can be used to compute the actual return.

ILLUSTRATION 20-7  Equation for Computing Actual Return

\[
\text{Actual Return} = \frac{(\text{Plan Assets Ending Balance}) - (\text{Plan Assets Beginning Balance})}{(\text{Contributions} - \text{Benefits Paid})}
\]

Stated another way, the actual return on plan assets is the difference between the fair value of the plan assets at the beginning of the period and the end of the period, adjusted for contributions and benefit payments. Illustration 20-8 uses the equation above to compute actual return, using the information provided in Illustration 20-6.

ILLUSTRATION 20-8  Computation of Actual Return on Plan Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets, December 31, 2013</td>
<td>€4,460,000</td>
</tr>
<tr>
<td>Plan assets, January 1, 2013</td>
<td>(€4,200,000)</td>
</tr>
<tr>
<td>Increase in fair value of plan assets</td>
<td>260,000</td>
</tr>
<tr>
<td>Deduct: Contributions to plan</td>
<td>€300,000</td>
</tr>
<tr>
<td>Add: Benefit payments to employees</td>
<td>250,000</td>
</tr>
<tr>
<td>Actual return</td>
<td>€210,000</td>
</tr>
</tbody>
</table>

In this case, Hasbro has a positive actual return on plan assets. Recently, some pension plans have experienced negative actual returns due to the increased volatility in global securities markets.

Using a Pension Worksheet

We will now illustrate the basic computation of pension expense using the first two components: (1) service cost and (2) net interest. We discuss remeasurements in later sections.

Companies often use a worksheet to record pension-related information. As its name suggests, the worksheet is a working tool. A worksheet is not a permanent accounting record: It is neither a journal nor part of the general ledger. The worksheet is merely a device to make it easier to prepare entries and the financial statements. Illustration 20-9 shows the format of the pension worksheet.

The “General Journal Entries” columns of the worksheet (near the left side) determine the entries to record in the formal general ledger accounts. The “Memo Record” columns (on the right side) maintain balances in the defined benefit obligation and the

Objective 5  Use a worksheet for employer’s pension plan entries.

---

plan assets. The difference between the defined benefit obligation and the fair value of
the plan assets is the pension asset/liability, which is shown in the statement of financial
position. If the defined benefit obligation is greater than the plan assets, a pension
liability occurs. If the defined benefit obligation is less than the plan assets, a pension
asset occurs.

On the first line of the worksheet, a company enters the beginning balances (if any). It then records subsequent transactions and events related to the pension plan using debits and credits, using both sets of columns as if they were one. For each trans-
action or event, the debits must equal the credits. The ending balance in the Pension
Asset/Liability column should equal the net balance in the memo record.

2011 Entries and Worksheet

To illustrate the use of a worksheet and how it helps in accounting for a pension plan,
assume that on January 1, 2011, Zarle Company provides the following information
related to its pension plan for the year 2011.

Plan assets, January 1, 2011, are €100,000.
Defined benefit obligation, January 1, 2011, is €100,000.
Annual service cost is €9,000.
Discount rate is 10 percent.
Funding contributions are €8,000.
Benefits paid to retirees during the year are €7,000.

Using the data presented above, the worksheet in Illustration 20-10 (page 1078)
presents the beginning balances and all of the pension entries recorded by Zarle in 2011.
Zarle records the beginning balances for the defined benefit obligation and the pension
plan assets on the first line of the worksheet in the memo record. Because the defined
benefit obligation and the plan assets are the same at January 1, 2011, the Pension
Asset/Liability account has a zero balance at January 1, 2011.

Entry (a) in Illustration 20-10 records the service cost component, which increases
pension expense by €9,000 and increases the liability (defined benefit obligation) by
€9,000. Entry (b) accrues the interest expense component, which increases both the
liability and the pension expense by €10,000 (the beginning defined benefit obligation
multiplied by the discount rate of 10 percent). Entry (c) records the interest revenue
component, which increases plan assets and decreases pension expense by €10,000.
This is computed by multiplying the beginning plan assets by the discount rate of 10
percent. As a result, interest expense (income) is zero in 2011. Entry (d) records Zarle’s
contribution (funding) of assets to the pension fund, thereby decreasing cash by €8,000
and increasing plan assets by €8,000. Entry (e) records the benefit payments made to
retirees, which results in equal €7,000 decreases to the plan assets and the defined ben-
efit obligation.
Zarle makes the “formal journal entry” on December 31, which records the pension expense in 2011, as follows.

\[
\begin{align*}
\text{2011} & \\
\text{Pension Expense} & 9,000 \\
\text{Cash} & 8,000 \\
\text{Pension Asset/Liability} & 1,000
\end{align*}
\]

The credit to Pension Asset/Liability for €1,000 represents the difference between the 2011 pension expense of €9,000 and the amount funded of €8,000. Pension Asset/Liability (credit) is a liability because Zarle underfunds the plan by €1,000. The Pension Asset/Liability account balance of €1,000 also equals the net of the balances in the memo accounts. Illustration 20-11 shows that the defined benefit obligation exceeds the plan assets by €1,000, which reconciles to the pension liability reported in the statement of financial position.

![Pension Worksheet—2011]

![Pension Reconciliation Schedule—December 31, 2011]

If the net of the memo record balances is a credit, the reconciling amount in the Pension Asset/Liability column will be a credit equal in amount. If the net of the memo record balances is a debit, the Pension Asset/Liability amount will be a debit equal in amount. The worksheet is designed to produce this reconciling feature, which is useful later in the preparation of the financial statements and required note disclosure related to pensions.

In this illustration (for 2011), the debit to Pension Expense exceeds the credit to Cash, resulting in a credit to Pension Asset/Liability—the recognition of a liability. If the credit to Cash exceeded the debit to Pension Expense, Zarle would debit Pension Asset/Liability—the recognition of an asset.\(^\text{11}\)

\(^\text{11}\)The IASB in IAS 19 limits the amount of a pension asset that is recognized, based on a recoverability test. This test, which has been further clarified in IFRIC 14, limits the amount of the pension asset to the sum of unrecognized actuarial gains and losses (discussed later) and amounts that will be received by the company in the form of refunds or reduction of future contributions. [\text{11}] For purposes of homework, assume that a pension asset, if present, meets the criteria for full recognition.
Past Service Cost

Past service cost is the change in the present value of the defined benefit obligation resulting from a plan amendment or a curtailment. For example, a plan amendment arises when a company decides to provide additional benefits to existing employees for past service. Conversely, the company may decide that it is necessary to reduce its benefit package retroactively for existing employees, thereby reducing their pension benefit. A curtailment occurs when the company has a significant reduction in the number of employees covered by the plan. Because a curtailment has the same effect as a reduction in benefits due to an amendment to the plan, these situations are accounted for in the same way. Illustration 20-12 summarizes the nature of past service costs.

The accounting for past service cost is straightforward—expense past service cost in the period of the amendment or curtailment. As a result, a substantial increase (decrease) in pension expense and the defined benefit obligation often results when a plan amendment or curtailment occurs. Because current and past service costs relate directly to employment, they are reported in the operating section of the statement of comprehensive income.

Some disagree with the IASB position of expensing these costs in the year a plan is amended or curtailed. They argue that a company would not provide these additional benefits for past years of service unless it expects to receive benefits in the future. According to this reasoning, a company should not recognize the full past service cost in the year of the amendment. Instead, the past service cost should be spread out over the remaining service life of employees who are expected to benefit from the changes in the plan. Others believe that if they are truly past service costs, they should be treated retroactively as an adjustment made to prior periods.

However, the IASB decided that any changes in the defined benefit obligation or plan assets should be recognized in the current period. To do otherwise is not informative and leads to delayed recognition of costs or reduced benefits which are neither assets nor liabilities. [13]

It is also possible to decrease past service costs by decreasing the defined benefit obligation (referred to as negative past service cost). Negative past service cost arises when an entity changes the benefits attributable to past service cost so that the present value of the defined benefit obligation decreases. In that case, pension expense is decreased. Both positive (increased pension expense) and negative (decreased pension expense) past service cost adjustments are handled in the same manner; that is, adjust pension expense immediately.

2012 Entries and Worksheet

Continuing the Zarle Company illustration into 2012, we note that the company amends the pension plan on January 1, 2012, to grant employees past service benefits with a

---

[12] The IASB also indicates that gains and losses on non-routine settlements are considered past service costs. [12] A settlement is a payment of benefits that is not set out in the terms of the plan.
present value of €81,600. The following additional facts apply to the pension plan for the year 2012.

Annual service cost is €9,500.
Discount rate is 10 percent.
Annual funding contributions are €20,000.
Benefits paid to retirees during the year are €8,000.

Illustration 20-13 presents a worksheet of all the pension entries and information recorded by Zarle in 2012.

The first line of the worksheet shows the beginning balances of the Pension Asset/Liability account and the memo accounts. Entry (f) records Zarle’s granting of past service cost, by adding €81,600 to the defined benefit obligation and to Pension Expense. Entry (g) records the current service cost; entry (h) records interest expense for the period. Because the past service cost occurred at the beginning of the year, interest is computed on the January 1, 2012, balance of the defined benefit obligation, adjusted for the past service cost. Interest expense is therefore €19,360 (€193,600 × 10%). Entry (i) records interest revenue for the period of €11,100 (€111,000 × 10%). Entries (j) and (k) are similar to the corresponding entries in 2011.

Zarle makes the following journal entry on December 31 to formally record the 2012 pension expense—the sum of the annual pension expense column.

2012

Pension Expense 99,360
Cash 20,000
Pension Asset/Liability 79,360

Because the expense exceeds the funding, Zarle credits the Pension Asset/Liability account for the €79,360 difference. That account is a liability. In 2012, as in 2011, the balance of the Pension Asset/Liability account (€80,360) is equal to the net of the balances in the memo accounts, as shown in Illustration 20-14.

The reconciliation is the formula that makes the worksheet work. It relates the components of pension accounting, recorded and unrecorded, to one another.
Remeasurements

Of great concern to companies that have pension plans are the uncontrollable and unexpected swings that can result from (1) sudden and large changes in the fair value of plan assets and (2) changes in actuarial assumptions that affect the amount of the defined benefit obligation. How should these changes (referred to as remeasurements) affect the financial statements, most notably pension expense? The IASB believes that the most informative way is to recognize the remeasurement in other comprehensive income. The rationale for this reporting is that the predictive nature of remeasurements is much different than the other two components of pension benefit cost—service cost and net interest. [14]

Remeasurements are generally of two types:

1. Gains and losses on plan assets.
2. Gains and losses on the defined benefit obligation.

Asset Gains and Losses

The gains and losses on plan assets (referred to as asset gains and losses) is the difference between the actual return and the interest revenue computed in determining net interest. Asset gains occur when actual returns exceed the interest revenue. Asset losses occur when the actual returns are less than interest revenue. To illustrate, assume that Shopbob Company has plan assets at January 1, 2103, of €100,000. The discount rate for the year is 6 percent, and the actual return on the plan assets for 2013 is €8,000. In 2013, Shopbob should record an asset gain of €2,000, computed as follows.

\[
\begin{align*}
\text{Actual return} & \quad €8,000 \\
\text{Interest revenue (€100,000 × 6\%)} & \quad 6,000 \\
\text{Asset gain} & \quad €2,000
\end{align*}
\]

Shopbob therefore debits plan assets for the asset gain of €2,000 and credits Other Comprehensive Income (G/L) for the same amount. If interest revenue exceeds the actual return, Shopbob debits Other Comprehensive Income (G/L) for the asset loss and credits plan assets.

Liability Gains and Losses

In estimating the defined benefit obligation (the liability), actuaries make assumptions about such items as mortality rate, retirement rate, turnover rate, disability rate, and salary amounts. Any change in these actuarial assumptions affects the amount of the defined benefit obligation. Seldom does actual experience coincide exactly with actuarial predictions. These gains or losses from changes in the defined benefit obligation are called liability gains and losses.

Companies report liability gains (resulting from unexpected decreases in the liability balance) and liability losses (resulting from unexpected increases in the liability balance) in Other Comprehensive Income (G/L). Companies combine the liability gains and losses in the same Other Comprehensive Income (G/L) account used for asset gains and losses. They accumulate the asset and liability gains and losses from year to year in Accumulated Other Comprehensive Income. [13] This amount is reported on the statement of financial position in the equity section.

[13]The IASB is silent as to whether the account “Accumulated Other Comprehensive Income” should be used instead of another equity account, like Retained Earnings. For homework purposes, use an Accumulated Other Comprehensive Income account. The IASB also permits the transfer of the balance in the Accumulated Other Comprehensive Income account to other equity accounts at a later date.
2013 Entries and Worksheet

Continuing the Zarle Company illustration, the following facts apply to the pension plan for 2013.

Annual service cost is €13,000.
Discount rate is 10 percent.
Actual return on plan assets is €12,000.
Annual funding contributions are €24,000.
Benefits paid to retirees during the year are €10,500.
Changes in actuarial assumptions establish the end-of-year defined benefit obligation at €265,000.

The worksheet in Illustration 20-16 presents all of Zarle’s 2013 pension entries and related information. The first line of the worksheet records the beginning balances that relate to the pension plan. In this case, Zarle’s beginning balances are the ending balances from its 2012 pension worksheet in Illustration 20-13 (page 1080).

Entries (l), (m), (n), (o), and (p) are similar to the corresponding entries in 2011 or 2012. Entries (m) and (n) are related. Entry (m) records the interest expense of €21,446 (€214,460 × 10%). Entry (n) records interest revenue of €13,410 (€134,100 × 10%). Therefore, net interest expense is €8,036 (€21,446 − €13,410). Entries (o) and (p) are recorded similarly in 2013 as those in 2011 and 2012.

Entries (q) and (r) need additional explanation. As indicated, the actual return on plan assets for 2013 was €12,000. However, as indicated in entry (n), pension expense was decreased €13,410 as a result of multiplying the beginning plan assets by the discount rate to arrive at an assumed interest revenue of €13,410 (€134,100 × 10%). As a result, Zarle has an asset loss of €1,410 (€13,410 − €12,000) because the assumed interest revenue is greater than the actual return. This asset loss is debited to Other Comprehensive Income (G/L) and credited to plan assets. Pension plan assets are then properly stated at their fair value.

Entry (r) records the change in the defined benefit obligation resulting from the changes in the actuarial assumptions related to this obligation. As indicated in the facts at the top of the page, the actuary has determined that the ending balance in the defined benefit obligation should be €265,000 at December 31, 2013. However, the balance at December 31, 2013, before any adjustment for actuarial gains and losses related to the defined benefit obligation is €238,406, as shown in Illustration 20-17.
The difference between the ending balance of €265,000 as determined by the actuary and the present balance of €238,406 is €26,594 (a liability loss on the defined benefit liability). As shown on the worksheet, this liability loss is debited to Other Comprehensive Income (G/L) and credited to the defined benefit obligation. After this worksheet adjustment, the defined benefit obligation is stated at its actuarial value of €265,000. The journal entry to record the information related to the pension plan at December 31, 2013, based on the pension worksheet in Illustration 20-16, is as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension Expense</td>
<td>21,036</td>
</tr>
<tr>
<td>Other Comprehensive Income (G/L)</td>
<td>28,004</td>
</tr>
<tr>
<td>Cash</td>
<td>24,000</td>
</tr>
<tr>
<td>Pension Asset/Liability</td>
<td>25,040</td>
</tr>
</tbody>
</table>

As the 2013 worksheet indicates, the €105,400 balance in the Pension Asset/Liability account at December 31, 2013, is equal to the net of the balances in the memo accounts. Illustration 20-18 shows this computation.

Zarle carries the 2013 ending balances for Pension Asset/Liability and Accumulated Other Comprehensive Income forward as the beginning balances for pension plan accounting in 2014. These balances will be adjusted by changes in the defined benefit obligation and plan assets as shown in the prior examples. For example, assume that Zarle’s pension plan had the following activity in 2014:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension expense</td>
<td>17,450</td>
</tr>
<tr>
<td>Contributions</td>
<td>32,000</td>
</tr>
<tr>
<td>Asset gain</td>
<td>13,500</td>
</tr>
<tr>
<td>Decrease in Pension Asset/Liability</td>
<td>27,700</td>
</tr>
</tbody>
</table>

The ending balances for the defined benefit obligation and plan assets are €303,560 and €225,860, respectively. These elements are summarized in the partial 2014 pension worksheet shown in Illustration 20-19.
Focusing on the “Journal Entry” row, in 2014 Zarle records pension expense of €17,450 and a decrease in Pension Asset/Liability of €27,700. The reduction in Pension Asset/Liability is due in part to the asset gain of €13,500 recorded in 2014. As a result, Zarle’s 2014 ending balances (which become the 2015 beginning balances) are €77,700 for Pension Asset/Liability and Accumulated Other Comprehensive Income €14,854 (beginning Accumulated OCI of €28,004 − gain of €13,150).

**ROLLER COASTER**

The chart below shows what has happened to the financial health of pension plans over the last few years. It is a real roller coaster.

![Funded Status of Defined Benefit Pension Plans for the S&P 500](chart.png)

At the turn of the century, when the securities market was strong, pension plans were overfunded. However, the bubble burst, and by 2002 companies in the S&P 500 saw their pension plans funded at just 85 percent of reported liabilities. In recent years, plans have bounced back, and by 2007 pension plans were overfunded again. However, due to recent downturns, plans are now underfunded again and the future is highly uncertain.

A number of factors cause a fund to change from being overfunded to underfunded. First, low interest rates decimate returns on pension plan assets. As a result, pension fund assets have not grown; in some cases, they have declined in value. Second, using low interest rates to discount the projected benefit payments leads to a higher pension liability. Finally, more individuals are retiring, which leads to a depletion of the pension plan assets.

*Source: D. Zion and A. Varshay, “Pension Headwinds,” Credit Suisse Equity Research (September 21, 2010).*

**REPORTING PENSION PLANS IN FINANCIAL STATEMENTS**

As you might suspect, a phenomenon as significant and complex as pensions involves extensive reporting and disclosure requirements. We will cover these requirements in two categories: (1) those within the financial statements and (2) those within the notes to the financial statements.

**Within the Financial Statements**

**Pension Expense**

As indicated earlier, pension expense (service cost and net interest) affects net income and is reported in the statement of comprehensive income. Companies may choose to report these components in one section of the statement of comprehensive income and report total pension expense. Other companies may choose to report the service cost
component in operating income and the net interest in a separate section related to financing.\textsuperscript{14}

**Gains and Losses (Remeasurements)**

Asset and liability gains and losses are recognized in other comprehensive income. By recognizing these gains and losses as part of other comprehensive income but not net income, the Board believes that the usefulness of financial statements is enhanced.

To illustrate the presentation of other comprehensive income and related accumulated OCI, assume that Obey Company provides the following information for the year 2013.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income for 2013</td>
<td>€100,000</td>
</tr>
<tr>
<td>Liability loss for 2013</td>
<td>€60,000</td>
</tr>
<tr>
<td>Asset loss for 2013</td>
<td>€15,000</td>
</tr>
<tr>
<td>Accumulated OCI, January 1, 2013</td>
<td>€40,000</td>
</tr>
</tbody>
</table>

Both the liability loss and the asset loss decrease the funded status of the plan on the statement of financial position. This results because the defined benefit obligation increases and the plan assets decrease. However, neither the liability loss nor the asset loss affects pension expense in 2013.

For Obey Company, the computation of “Other comprehensive loss” for 2013 is as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability loss</td>
<td>€60,000</td>
</tr>
<tr>
<td>Asset loss</td>
<td>€15,000</td>
</tr>
<tr>
<td>Other comprehensive loss</td>
<td>€75,000</td>
</tr>
</tbody>
</table>

The computation of “Comprehensive income” for 2013 is as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>€100,000</td>
</tr>
<tr>
<td>Other comprehensive loss</td>
<td>€75,000</td>
</tr>
<tr>
<td>Comprehensive income</td>
<td>€25,000</td>
</tr>
</tbody>
</table>

The components of other comprehensive income must be reported in one of two ways: (1) in a second income statement or (2) in a combined statement of comprehensive income. Regardless of the format used, net income must be added to other comprehensive income to arrive at comprehensive income. \textit{For homework purposes, use the second income statement approach unless stated otherwise.} Earnings per share information related to comprehensive income is not required.

To illustrate the second income statement approach, assume that Obey Company has reported a traditional income statement. The comprehensive income statement is shown in Illustration 20-22 (page 1086).

\textsuperscript{14}For homework purposes, report pension expense as a single total in income from operations in the statement of comprehensive income. Note that other IFRSs require inclusion of some employee benefit costs within the costs of assets, such as inventories and property, plant, and equipment. Any postemployment benefit costs included in the cost of such assets will include an appropriate proportion of service cost and net interest. \textsuperscript{[15]}
ILLUSTRATION 20-22
Comprehensive Income Reporting

<table>
<thead>
<tr>
<th>OBEGY COMPANY</th>
<th>COMPREHENSIVE INCOME STATEMENT</th>
<th>FOR THE YEAR ENDED DECEMBER 31, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>€100,000</td>
<td></td>
</tr>
<tr>
<td>Other comprehensive loss</td>
<td>€60,000</td>
<td></td>
</tr>
<tr>
<td>Liability loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset loss</td>
<td>15,000</td>
<td>75,000</td>
</tr>
<tr>
<td>Comprehensive income</td>
<td></td>
<td>€25,000</td>
</tr>
</tbody>
</table>

The computation of “Accumulated other comprehensive income” as reported in equity at December 31, 2013, is as follows.

ILLUSTRATION 20-23
Computation of Accumulated Other Comprehensive Income

<table>
<thead>
<tr>
<th>OBEY COMPANY</th>
<th>STATEMENT OF FINANCIAL POSITION</th>
<th>AS OF DECEMBER 31, 2013 (EQUITY SECTION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share capital—ordinary</td>
<td>€100,000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>Accumulated other comprehensive loss</td>
<td>35,000</td>
<td></td>
</tr>
<tr>
<td>Total equity</td>
<td></td>
<td>€125,000</td>
</tr>
</tbody>
</table>

By providing information on the components of comprehensive income as well as total accumulated other comprehensive income, the company communicates all changes in net assets.

The IASB prohibits recycling of other comprehensive income items. Recycling means that other comprehensive income items are reclassified (through amortization) to net income over a period of time. Recycling, for example, is used under U.S. GAAP. The IASB notes that it is difficult to establish a reasonable basis for making these transfers. In addition, not adjusting these amounts over time into net income signals that these items have characteristics different than normal revenues and expenses.

Recognition of the Net Funded Status of the Pension Plan
Companies must recognize on their statement of financial position the overfunded (pension asset) or underfunded (pension liability) status of their defined benefit pension plan. The overfunded or underfunded status is measured as the difference between the fair value of the plan assets and the defined benefit obligation.

Classification of Pension Asset or Pension Liability
The IASB does not indicate whether a company should distinguish current and non-current portions of assets and liabilities arising from pension benefits. For homework purposes, assume that no portion of a pension asset is reported as a current asset. The excess of the fair value of the plan assets over the defined benefit obligation is classified as a non-current asset. The rationale for non-current classification is that the pension plan assets are restricted. That is, these assets are used to fund the defined benefit obligation, and therefore non-current classification is appropriate.
The current portion of a net pension liability represents the amount of benefit payments to be paid in the next 12 months (or operating cycle, if longer), if that amount cannot be funded from existing plan assets. Otherwise, the pension liability is classified as a non-current liability.

**Aggregation of Pension Plans**

Some companies have two or more pension plans. In such instances, a question arises as to whether these multiple plans should be combined and shown as one amount on the statement of financial position. The Board takes the position that in general pension plans should not be combined. The only situation in which offsetting is permitted is when a company:

(a) Has a legally enforceable right to use a surplus in one plan to settle obligations in the other plan, and

(b) Intends either to settle the obligation on a net basis, or to realize the surplus in one plan and settle its obligations under the other plan simultaneously.

**Within the Notes to the Financial Statements**

Information on pension plans is frequently important to understanding a company’s financial position, results of operations, and cash flows. To increase understanding of pension plans, a company is required to disclose information that:

(a) Explains characteristics of its defined benefit plans and risks associated with them.

(b) Identifies and explains the amounts in its financial statements arising from its defined benefit plans.

(c) Describes how its defined benefit plans may affect the amount, timing, and uncertainty of the company’s future cash flows.

To meet these requirements, companies provide extensive disclosures related to their defined benefit plans. We focus our discussion on the second objective that requires identifying and explaining the amounts in financial statements arising from defined pension plans. These requirements are summarized in Illustration 20-25.

**ILLUSTRATION 20-25**

Pension Disclosure Requirements

**Amounts reported in the financial statements:**

Companies should provide reconciliation from the beginning balance to the ending balance for each of the following:

1. Plan assets.
2. Defined benefit obligation.
3. Funded status of the plan.

This reconciliation should report the following, where appropriate.

- Current service cost.
- Interest revenue or expense.
- Remeasurements of the net defined benefit liability (asset) showing separately (a) the return on plan assets, excluding amounts of interest revenue computed in (2); and (b) actuarial gains and losses arising from changes in the defined benefit obligation.
- Past service cost and curtailments.
- Contributions and payments to the plan.

**Information on how the defined benefit plan may affect the amount, timing, and uncertainty of future cash flows:**

1. Sensitivity analysis for each significant actuarial assumption, showing how the defined benefit obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the reporting date.
2. Methods and assumptions used in preparing the sensitivity analyses required by (1) and the limitations of those methods.
3. Changes from the previous period in the methods and assumptions used in preparing the sensitivity analyses and the reasons for such changes.
4. Description of any funding arrangements and funding policy that affect future contributions.
5. Expected contributions to the plan for the next annual reporting period.
6. Information about the maturity profile of the defined benefit obligation, including information about the distribution of the timing of benefit payments, such as a maturity analysis of the benefit payments.
The reconciliation is a key element of the pension disclosure package. By having a reconciliation of the changes in the assets and liabilities from the beginning of the year to the end of the year, statement readers can better understand the underlying economics of the plan. In essence, this disclosure contains the information in the pension worksheet for the defined benefit obligation and plan asset columns in accordance with IAS 19 requirements. Using the information for Zarle, the schedule in Illustration 20-26 provides an example of the reconciliation.

<table>
<thead>
<tr>
<th>ZARLE COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENSION DISCLOSURE</td>
</tr>
<tr>
<td>2011</td>
</tr>
<tr>
<td><strong>Change in benefit obligation</strong></td>
</tr>
<tr>
<td>Benefit obligation at beginning of year</td>
</tr>
<tr>
<td>Service cost</td>
</tr>
<tr>
<td>Interest expense</td>
</tr>
<tr>
<td>Amendments (Past service cost)</td>
</tr>
<tr>
<td>Benefits paid</td>
</tr>
<tr>
<td>Actuarial loss</td>
</tr>
<tr>
<td>Benefit obligation at end of year</td>
</tr>
<tr>
<td><strong>Change in plan assets</strong></td>
</tr>
<tr>
<td>Fair value of plan assets at beginning of year</td>
</tr>
<tr>
<td>Interest revenue</td>
</tr>
<tr>
<td>Contributions</td>
</tr>
<tr>
<td>Benefits paid</td>
</tr>
<tr>
<td>Asset loss</td>
</tr>
<tr>
<td>Fair value of plan assets at end of year</td>
</tr>
<tr>
<td>Funded status (Pension asset/liability)</td>
</tr>
</tbody>
</table>

The 2011 column reveals that Zarle underfunds the defined benefit obligation by €1,000. The 2012 column reveals that Zarle reports the underfunded liability of €80,360 in the statement of financial position. Finally, the 2013 column indicates that Zarle recognizes the underfunded liability of €105,400 in the statement of financial position.

**Other Postretirement Benefits**

In addition to pensions, companies often promise other types of postretirement benefits. The benefits include life insurance outside a pension plan; medical, dental, and eye care; legal and tax services; and so on. Because healthcare benefits are the largest of other postretirement benefits, we provide a general description of how they differ from a traditional pension plan. Illustration 20-27 shows these differences.

<table>
<thead>
<tr>
<th>Item</th>
<th>Pensions</th>
<th>Healthcare Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding</td>
<td>Generally funded.</td>
<td>Generally not funded.</td>
</tr>
<tr>
<td>Benefit</td>
<td>Well-defined and level dollar amount.</td>
<td>Generally uncapped and great variability.</td>
</tr>
<tr>
<td>Beneficiary</td>
<td>Retiree (maybe some benefit to surviving spouse).</td>
<td>Retiree, spouse, and other dependents.</td>
</tr>
<tr>
<td>Benefit payable</td>
<td>Monthly.</td>
<td>As needed and used.</td>
</tr>
<tr>
<td>Predictability</td>
<td>Variables are reasonably predictable.</td>
<td>Utilization difficult to predict. Level of cost varies geographically and fluctuates over time.</td>
</tr>
</tbody>
</table>
Two of the differences in Illustration 20-27 highlight why measuring the future payments for healthcare benefit plans is so much more difficult than for pension plans.

1. **Many postretirement plans do not set a limit on healthcare benefits.** No matter how serious the illness or how long it lasts, the benefits continue to flow. (Even if the employer uses an insurance company plan, the premiums will escalate according to the increased benefits provided.)

2. **The levels of healthcare benefit use and healthcare costs are difficult to predict.** Increased longevity, unexpected illnesses (e.g., AIDS, SARS, and H1N1 flu), along with new medical technologies and cures, cause changes in healthcare utilization.

Additionally, although the fiduciary and reporting standards for employee benefit funds under government regulations generally cover healthcare benefits, the stringent minimum vesting, participation, and funding standards that apply to pensions do not apply to healthcare benefits. Nevertheless, the basic concepts of pension accounting apply to other postretirement benefits. As a result, the IASB indicates that the accounting and reporting of these other types of postretirement benefits should be the same as that used for pension plan reporting. However, companies with both pension and other postretirement benefit plans must separately disclose the plan details when the plans are subject to materially different risks. [18]

**Concluding Observations**

Hardly a day goes by without the financial press analyzing in depth some issue related to pension plans around the world. This is not surprising since pension funds now hold trillions of dollars, euros, pounds, and yen in assets. As you have seen, the accounting issues related to pension plans are complex. Recent changes to IFRS have clarified many of these issues and should help users understand the financial implications of a company’s pension plans on its financial position, results of operations, and cash flows.
Companies are not required to adopt the changes arising from the amendments to IAS 19 until 2013. However, many are already analyzing the impact on financial statements and the implications for users of financial statements. The following table summarizes some of the key accounting impacts and their consequences—some good, some bad.

<table>
<thead>
<tr>
<th>Accounting/Financial Reporting Impact</th>
<th>Consequences of the Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potentially <strong>higher pension expense</strong> due to use of a single (usually lower) discount rate to determine return on assets (interest revenue) and recognition of all past service costs in net income.</td>
<td>Could lead to violation of loan covenants or increased bonus payments for performance plans based on net income.</td>
</tr>
<tr>
<td><strong>Increased volatility in statement of financial position and shareholders’ equity</strong> due to recognition of all remeasurements in other comprehensive income.</td>
<td>Could lead to violation of loan covenants based on shareholders’ equity and affect regulatory oversight based on share capital.</td>
</tr>
<tr>
<td><strong>Reduced net income volatility</strong> for companies that previously recognized all gains and losses in net income.</td>
<td>Companies may realize lower cost of capital because less volatility is associated with lower risk.</td>
</tr>
</tbody>
</table>

The reduced net income volatility could be a significant benefit when companies adopt the new rules. For example, the following chart indicates that if the new rules would have been applied in the years 1998–2009 (black line), changes in net income would have been much less volatile, compared to net income changes reported under the prior rules (red line). Change can be painful. However, in this case the change to the new rules will likely result in less pain associated with net income volatility.

![Change in net income from current accounting to: New IAS 19, Old IASB standard](image)

Source: PricewaterhouseCoopers, *Pension and OPEB Accounting: A Study of the IASB’s Proposal* (2010), Exhibit 4-8, p. 20. The data are based on analysis of 60 large multinational companies with large, mature defined benefit plans.
As indicated, U.S. GAAP and IFRS differ in the amounts included in pension expense. Consider the following pension expense elements for Altidore Company, as measured under IFRS and U.S. GAAP.

<table>
<thead>
<tr>
<th></th>
<th>IFRS</th>
<th>U.S. GAAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current service cost</td>
<td>€28,000</td>
<td>€28,000</td>
</tr>
<tr>
<td>Past service cost</td>
<td>30,000</td>
<td>—</td>
</tr>
<tr>
<td>Interest expense</td>
<td>21,000</td>
<td>21,000</td>
</tr>
<tr>
<td>Interest revenue</td>
<td>(18,000)</td>
<td>—</td>
</tr>
<tr>
<td>Expected return on plan assets</td>
<td>—</td>
<td>(28,800)</td>
</tr>
<tr>
<td>Amortization of past service cost</td>
<td>—</td>
<td>3,000</td>
</tr>
<tr>
<td>(10-year service lives)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortization of liability and asset gain/loss</td>
<td>—</td>
<td>500</td>
</tr>
<tr>
<td>Pension expense</td>
<td>€61,000</td>
<td>€23,700</td>
</tr>
</tbody>
</table>

Under IFRS, Altidore includes all service costs and net interest elements in pension expense. Under U.S. GAAP, in determining pension expense, Altidore includes only current service cost, expected return on plan assets (which includes unexpected gains and losses). Gains and losses and past service costs are amortized to income over the service lives of employees. Thus, depending on the features of the pension plan (e.g., in a year when past service costs are granted), pension expense can be significantly different between IFRS and U.S. GAAP.
KEY TERMS
accumulated benefit obligation, 1071
actual return on plan assets, 1075
actuarial present value (n), 1071
actuaries, 1070
asset gains and losses, 1081
benefits/years-of-service method, 1074
components of pension cost, 1073
contributory pension plan, 1068
curtailment, 1079
defined benefit obligation, 1071
defined benefit plan, 1069
defined contribution plan, 1069
discount rate, 1075
funded pension plan, 1068
funded status, 1072
interest on the liability (interest expense), 1075
liability gains and losses, 1081
net defined benefit liability (asset), 1072
non-contributory pension plan, 1068
past service cost (PSC), 1079
pension asset/liability, 1077
pension plan, 1068
pension worksheet, 1076
plan assets, 1075
projected unit credit method (benefits/years-of-service method), 1074
qualified pension plan, 1068
reconciliation, 1080
remeasurements, 1081
service cost, 1073
settlement (n), 1079
vested benefit obligation, 1071
vested benefits, 1071

SUMMARY OF LEARNING OBJECTIVES
1. Distinguish between accounting for the employer’s pension plan and accounting for the pension fund. The company or employer is the organization sponsoring the pension plan. It incurs the cost and makes contributions to the pension fund. The fund or plan is the entity that receives the contributions from the employer, administers the pension assets, and makes the benefit payments to the pension recipients (retired employees). The fund should be a separate legal and accounting entity; it maintains a set of books and prepares financial statements.

2. Identify types of pension plans and their characteristics. The two most common types of pension arrangements are: (1) Defined contribution plans: The employer agrees to contribute to a pension trust a certain sum each period based on a formula. This formula may consider such factors as age, length of employee service, employer’s profits, and compensation level. Only the employer’s contribution is defined; no promise is made regarding the ultimate benefits paid out to the employees. (2) Defined benefit plans: These plans define the benefits that the employee will receive at the time of retirement. The formula typically provides for the benefits to be a function of the employee’s years of service and the compensation level when he or she nears retirement.

3. Explain measures for valuing the pension obligation. One measure bases the pension obligation only on the benefits vested to the employees. Vested benefits are those that the employee is entitled to receive even if he or she renders no additional services under the plan. Companies compute the vested benefits pension obligation using current salary levels; this obligation includes only vested benefits. Another measure of the obligation, called the accumulated benefit obligation, computes the deferred compensation amount based on all years of service performed by employees under the plan—both vested and non-vested—using current salary levels. A third measure, called the defined benefit obligation, bases the computation of the deferred compensation amount on both vested and non-vested service using future salaries.

4. Identify amounts reported in financial statements. In the statement of financial position, companies report the net defined benefit liability/asset (funded status), which is the defined benefit obligation less the fair value of plan assets (if any). Changes in the net defined benefit obligation (asset) are reported in comprehensive income. Service cost (current and past) and net interest (computed by multiplying the discount rate by the funded status of the plan) are reported in the operating section of comprehensive income. Remeasurements are gains and losses related to the defined benefit obligation (changes in discount rate or other actuarial assumptions) and gains or losses on the fair value of the plan assets. Remeasurements are reported in other comprehensive income.

5. Use a worksheet for employer’s pension plan entries. Companies may use a worksheet unique to pension accounting. This worksheet records both the formal entries and the memo entries to keep track of all the employer’s relevant pension plan items and components.

6. Explain the accounting for past service costs. Past service cost is the change in the value of the defined benefit obligation resulting from a plan amendment or a curtailment. Past service costs are expensed in the period of the amendment or curtailment. As a result, a substantial increase (decrease) in pension expense and the defined benefit obligation often results when a plan amendment or curtailment occurs.
Explain the accounting for remeasurements. Remeasurements arise from (1) gains and losses on plan assets and (2) gains and losses on the defined benefit obligation. The gains and losses on plan assets (asset gain or loss) is the difference between the actual return and the interest revenue computed in determining net interest. Asset gains occur when actual returns exceed the interest revenue. Asset losses occur when the actual returns are less than interest revenue. The gains or losses on the defined benefit obligation (liability gain/loss) are due to changes in actuarial assumptions that affect the amount of the defined benefit obligation. All remeasurements are reported in other comprehensive income. These amounts are not recycled into income in subsequent periods.

Describe the requirements for reporting pension plans in financial statements. A company reports the pension asset/liability as an asset or a liability in the statement of financial position at the end of a reporting period. The classification as non-current or current follows the general guidelines used for classification of other assets or liabilities. On the income statement (or related notes), the company must report the amount of pension expense for the period. In addition, any actuarial gains or losses charged or credited to other comprehensive income should be reported in the statement of comprehensive income.

In the notes, a company is required to disclose information that (a) explains characteristics of its defined benefit plans and risks associated with them, (b) identifies and explains the amounts in its financial statements arising from its defined benefit plans, and (c) describes how its defined benefit plans may affect the amount, timing, and uncertainty of the company’s future cash flows. Important note disclosures are summarized in Illustration 20-25. The reconciliation of the changes in the pension assets and liabilities is a key element of the pension disclosure package.

Explain the accounting for other postretirement benefits. Companies often provide other types of non-pension postretirement benefits, such as life insurance outside a pension plan, medical care, and legal and tax services. The accounting for these other types of postretirement benefits is the same as that used for pension plan reporting. Companies with both pension and other postretirement benefit plans must separately disclose the plan details when the plans are subject to materially different risks.

Authoritative Literature References


QUESTIONS

1. What is a private pension plan? How does a contributory pension plan differ from a non-contributory plan?

2. Differentiate between a defined contribution pension plan and a defined benefit pension plan. Explain how the employer’s obligation differs between the two types of plans.

3. Differentiate between “accounting for the employer” and “accounting for the pension fund.”

4. The meaning of the term “fund” depends on the context in which it is used. Explain its meaning when used as a noun. Explain its meaning when it is used as a verb.

5. What is the role of an actuary relative to pension plans? What are actuarial assumptions?

6. What factors must be considered by the actuary in measuring the amount of pension benefits under a defined benefit plan?

7. Name three approaches to measuring benefits from a pension plan and explain how they differ.

8. Explain how cash-basis accounting for pension plans differs from accrual-basis accounting for pension plans. Why is cash-basis accounting generally considered unacceptable for pension plan accounting?

9. What is the net benefit obligation (asset)? How is the net benefit obligation (asset) reported in the financial statements?

10. What elements comprise changes in the net benefit obligation (asset)? How are these changes reported in the financial statements?

11. Identify the components of pension expense. Briefly explain the nature of each component.

12. What is service cost, and what is the basis of its measurement?

13. What is net interest? Identify the elements of net interest and explain how they are computed.

14. Given the following items and amounts, compute the actual return on plan assets: fair value of plan assets at the beginning of the period $9,200,000; benefits paid during the period $1,400,000; contributions made during the period $1,000,000; and fair value of the plan assets at the end of the period $10,150,000.
15. Explain the difference between service cost and past service cost.

16. What is meant by “past service cost”? When is past service cost recognized as pension expense?

17. What is a pension plan curtailment? Explain the accounting for pension plan curtailments.

18. Sarah is a finance major who has only taken one accounting course. She asserts that pension remeasurements, like many other accounting adjustments, are recorded in net income. Is Sarah correct? Explain.

19. How does an “asset gain or loss” develop in pension accounting?

20. What are “liability gains and losses,” and how are they accounted for?

21. If pension expense recognized in a period exceeds the current amount funded by the employer, what kind of account arises, and how should it be reported in the financial statements? If the reverse occurs—that is, current funding by the employer exceeds the amount recognized as pension expense—what kind of account arises, and how should it be reported?

22. Bill Haley is learning about pension accounting. He is convinced that in years when companies record liability gains and losses, total comprehensive income will not be affected. Is Bill correct? Explain.

23. At the end of the current period, Jacob Inc. has a defined benefit obligation of €125,000 and pension plan assets with a fair value of €98,000. The amount of the vested benefits for the plan is €95,000. What amount and account(s) related to its pension plan will be reported on the company’s statement of financial position?

24. At the end of the current year, Joshua Co. has a defined benefit obligation of £335,000 and pension plan assets with a fair value of £345,000. The amount of the vested benefits for the plan is £225,000. Joshua has a liability gain of £8,300. What amount and account(s) related to its pension plan will be reported on the company’s statement of financial position?

25. Explain the meaning of the following terms.
   (a) Contributory plan.
   (b) Vested benefits.
   (c) Retroactive benefits.

26. Of what value to the financial statement reader is the schedule reconciling the funded status of the plan with amounts reported in the employer’s statement of financial position?

27. What are postretirement benefits other than pensions?

28. What are the major differences between postretirement healthcare benefits and pension benefits?

29. Briefly describe some of the similarities and differences between U.S. GAAP and IFRS with respect to the accounting for pensions and other postretirement benefits.

30. Briefly discuss the convergence efforts that are underway with respect to the accounting for pensions and other postretirement benefits.

---

**BRIEF EXERCISES**

**BE20-1** Assume that Cathay Pacific Airlines (CHN) reported the following for 2009 (in millions).

<table>
<thead>
<tr>
<th></th>
<th>HK$1,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service cost</td>
<td>316</td>
</tr>
<tr>
<td>Interest on DBO</td>
<td>342</td>
</tr>
<tr>
<td>Interest revenue</td>
<td>371</td>
</tr>
</tbody>
</table>

Compute Cathay Pacific’s 2009 pension expense.

**BE20-2** For Becker Corporation, year-end plan assets were $2,000,000. At the beginning of the year, plan assets were $1,680,000. During the year, contributions to the pension fund were $120,000, and benefits paid were $200,000. Compute Becker’s actual return on plan assets.

**BE20-3** At January 1, 2012, Uddin Company had plan assets of $250,000 and a defined benefit obligation of the same amount. During 2012, service cost was $27,500, the discount rate was 10%, actual return on plan assets was $25,000, contributions were $20,000, and benefits paid were $17,500. Prepare a pension worksheet for Uddin Company for 2012.

**BE20-4** For 2010, assume that Wm Morrison Supermarkets plc (GBR) had pension expense of £61 million and contributed £52 million to the pension fund. Prepare Morrison’s journal entry to record pension income and funding.

**BE20-5** Duesbury Corporation amended its pension plan on January 1, 2012, and granted $120,000 of past service costs to its employees. The employees have an average time to vesting of four years. Current service cost for 2012 is $23,000, and net interest expense is $8,000. Compute pension expense for Duesbury in 2012.
Villa Company has experienced tough competition, leading it to seek concessions from its employees in the company’s pension plan. In exchange for promises to avoid layoffs and wage cuts, the employees agreed to receive lower pension benefits in the future. As a result, Villa amended its pension plan on January 1, 2012, and recorded negative past service cost of €125,000. The average period to vesting for the benefits affected by this plan is 5 years. Current service cost for 2012 is €26,000. Interest expense is €9,000, and interest revenue is €2,500. Actual return on assets in 2012 is €1,500. Compute pension expense for Villa in 2012.

Refer to the information for Villa Company in BE20-6. Compute the gain or loss on pension plan assets for Villa Company and indicate the accounting and reporting for the asset gains or losses.

Hunt Corporation had a defined benefit obligation of $3,100,000 and plan assets of $2,900,000 at January 1, 2012. Hunt’s discount rate is 6%. In 2012, actual return on plan assets is $160,000. Hunt contributed $200,000 to the pension fund and paid benefits of $150,000. Service cost for 2012 is $50,000; Hunt reports that the defined benefit obligation at December 31, 2012, is $3,600,000. Determine (a) pension expense for 2012; (b) pension assets at December 31, 2012; and (c) pension asset and liability gains and losses. Indicate how pension gains and losses will be reported by Hunt in the statement of comprehensive income and the statement of financial position.

Tevez Company experienced an actuarial loss of €750 in its defined benefit plan in 2012. For 2012, Tevez’s revenues are €125,000, and expenses (excluding pension expense of €14,000) are €85,000. Prepare Tevez’s statement of comprehensive income for 2012.

At December 31, 2012, Conway Corporation had a defined benefit obligation of €510,000 and plan assets of €322,000. Prepare a pension reconciliation schedule for Conway.

Caleb Corporation has the following information available concerning its postretirement medical benefit plan for 2012.

| Service cost | $40,000 |
| Interest expense | 52,400 |
| Interest revenue | 26,900 |

Compute Caleb’s 2012 postretirement expense.

For 2012, Benjamin Inc. computed its annual postretirement expense as £240,900. Benjamin’s contribution to the plan during 2012 was £160,000. Prepare Benjamin’s 2012 entry to record postretirement expense.

EXERCISES

The following information is available for the pension plan of Radcliffe Company for the year 2012.

| Interest revenue on plan assets | $15,000 |
| Benefits paid to retirees | 40,000 |
| Contributions (funding) | 90,000 |
| Discount (interest) rate | 10% |
| Defined benefit obligation, January 1, 2012 | 500,000 |
| Service cost | 60,000 |

(a) Compute pension expense for the year 2012.

(b) Prepare the journal entry to record pension expense and the employer’s contribution to the pension plan in 2012.

Veldre Company provides the following information about its defined benefit pension plan for the year 2012.

| Service cost | €90,000 |
| Contribution to the plan | 105,000 |
| Benefits paid | 40,000 |
| Plan assets at January 1, 2012 | 640,000 |
| Defined benefit obligation at January 1, 2012 | 700,000 |
| Discount (interest) rate | 10% |

Compute the pension expense for the year 2012.

E20-4 (Basic Pension Worksheet) The following facts apply to the pension plan of Boudreau Inc. for the year 2012.

Plan assets, January 1, 2012 $490,000
Defined benefit obligation, January 1, 2012 490,000
Discount (interest) rate 8%
Service cost 40,000
Contributions (funding) 25,000
Actual return on plan assets 39,200
Benefits paid to retirees 33,400

Instructions
Using the preceding data, compute pension expense for the year 2012. As part of your solution, prepare a pension worksheet that shows the journal entry for pension expense for 2012 and the year-end balances in the related pension accounts.

E20-5 (Computation of Actual Return) Gingrich Importers provides the following pension plan information.

Fair value of pension plan assets, January 1, 2012 $2,400,000
Fair value of pension plan assets, December 31, 2012 2,725,000
Contributions to the plan in 2012 280,000
Benefits paid retirees in 2012 350,000
Discount (interest) rate 7%

Instructions
(a) From the data above, compute the actual return on the plan assets for 2012.
(b) Compute asset gain or loss, and indicate how the gain or loss will be reported.

E20-6 (Basic Pension Worksheet) The following defined pension data of Yang Corp. apply to the year 2012.

Defined benefit obligation, 1/1/12 (before amendment) ¥560,000
Plan assets, 1/1/12 546,200
Pension liability 13,800
On January 1, 2012, Yang Corp., through plan amendment, grants past service benefits having a present value of 120,000
Discount (interest) rate 9%
Service cost 58,000
Contributions (funding) 65,000
Actual return on plan assets 49,158
Benefits paid to retirees 40,000

Instructions
For 2012, prepare a pension worksheet for Yang Corp. that shows the journal entry for pension expense and the year-end balances in the related pension accounts.

E20-7 (Pension Worksheet, Gains and Losses) Kennedy Company had a defined benefit obligation of $6,300,000 and plan assets of $4,900,000 at January 1, 2013. Kennedy has the following data related to the plan during 2013.

Discount (interest) rate 7%
Service cost $120,000
Actual return on plan assets $295,000
Contributions $400,000
Benefits paid $300,000

Defined benefit obligation at December 31, 2013, is $6,650,000. There are no accumulated gains or losses at December 31, 2012.

Instructions
(a) Prepare a pension worksheet for Kennedy Company for 2013.
(b) Prepare the journal entry to record 2013 pension expense.
(c) Indicate how pension gains and losses (if any) will be reported by Kennedy in the statement of comprehensive income and the statement of financial position.
E20-8  (Disclosures: Pension Expense and Other Comprehensive Income)  Taveras Enterprises provides the following information related to its defined benefit pension plan.

**Balances or Values at December 31, 2012**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined benefit obligation</td>
<td>€2,737,000</td>
</tr>
<tr>
<td>Fair value of plan assets</td>
<td>2,278,329</td>
</tr>
<tr>
<td>Accumulated OCI—Net loss (1/1/12 balance, –0–)</td>
<td>34,220</td>
</tr>
<tr>
<td>Service cost for 2012</td>
<td>94,000</td>
</tr>
<tr>
<td>Actual return on plan assets in 2012</td>
<td>130,000</td>
</tr>
<tr>
<td>Interest on January 1, 2012, defined benefit obligation</td>
<td>164,220</td>
</tr>
<tr>
<td>Contributions to plan in 2012</td>
<td>93,329</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>140,000</td>
</tr>
<tr>
<td>Discount (interest) rate</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Instructions**

(a) Prepare the note disclosing the components of pension expense for the year 2012.

(b) Determine the amounts of other comprehensive income and comprehensive income for 2012. Net income for 2012 is €35,000.

(c) Compute the amount of accumulated other comprehensive income reported at December 31, 2012.

E20-9  (Pension Worksheet)  Webb Corp. sponsors a defined benefit pension plan for its employees. On January 1, 2012, the following balances relate to this plan.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets</td>
<td>$480,000</td>
</tr>
<tr>
<td>Defined benefit obligation</td>
<td>600,000</td>
</tr>
<tr>
<td>Pension asset/liability</td>
<td>120,000</td>
</tr>
</tbody>
</table>

As a result of the operation of the plan during 2012, the following additional data are provided by the actuary.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service cost for 2012</td>
<td>$90,000</td>
</tr>
<tr>
<td>Discount (interest) rate</td>
<td>6%</td>
</tr>
<tr>
<td>Actual return on plan assets in 2012</td>
<td>55,000</td>
</tr>
<tr>
<td>Unexpected loss from change in defined benefit obligation, due to change in actuarial predictions</td>
<td>76,000</td>
</tr>
<tr>
<td>Contributions in 2012</td>
<td>99,000</td>
</tr>
<tr>
<td>Benefits paid retirees in 2012</td>
<td>85,000</td>
</tr>
</tbody>
</table>

**Instructions**

(a) Using the data above, compute pension expense for Webb Corp. for the year 2012 by preparing a pension worksheet.

(b) Prepare the journal entry for pension expense for 2012.

E20-10  (Pension Expense, Journal Entries, Statement Presentation)  Henning Company sponsors a defined benefit pension plan for its employees. The following data relate to the operation of the plan for the year 2012.

1. The actuarial present value of future benefits earned by employees for services rendered in 2012 amounted to $56,000.
2. The company’s funding policy requires a contribution to the pension trustee amounting to $145,000 for 2012.
3. As of January 1, 2012, the company had a defined benefit obligation of $900,000, an accumulated benefit obligation of $800,000, and a balance of $40,000 in accumulated OCI (Loss). The fair value of pension plan assets amounted to $600,000 at the beginning of the year. The discount rate was 9%. Actual return on plan assets was $60,000, and no benefits were paid.

**Instructions**

(a) Determine the amounts of the components of pension expense that should be recognized by the company in 2012.

(b) Prepare the journal entry or entries to record pension expense and the employer’s contribution to the pension trustee in 2012.

(c) Indicate the amounts that would be reported on the income statement and the statement of financial position for the year 2012.
E20-11  (Pension Expense, Journal Entries, Statement Presentation)  Ferreri Company received the following selected information from its pension plan trustee concerning the operation of the company’s defined benefit pension plan for the year ended December 31, 2012.

<table>
<thead>
<tr>
<th></th>
<th>January 1, 2012</th>
<th>December 31, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined benefit obligation</td>
<td>€1,500,000</td>
<td>€1,527,000</td>
</tr>
<tr>
<td>Fair value of plan assets</td>
<td>800,000</td>
<td>1,130,000</td>
</tr>
<tr>
<td>Accumulated benefit obligation</td>
<td>1,600,000</td>
<td>1,720,000</td>
</tr>
<tr>
<td>Accumulated OCI (G/L)—Net gain</td>
<td>0</td>
<td>200,000</td>
</tr>
</tbody>
</table>

The service cost component of pension expense for employee services rendered in the current year amounted to €77,000. The company’s actual funding (contributions) of the plan in 2012 amounted to €250,000. The discount (interest) rate was 10%. Assume no benefits paid in 2012.

Instructions
(a) Determine the amounts of the components of pension expense that should be recognized by the company in 2012.
(b) Prepare the journal entry to record pension expense and the employer’s contribution to the pension plan in 2012.
(c) Indicate the pension-related amounts that would be reported on the income statement and the statement of financial position for Ferreri Company for the year 2012.

E20-12  (Computation of Actual Return, Gains and Losses, and Pension Expense)  Erickson Company sponsors a defined benefit pension plan. The corporation’s actuary provides the following information about the plan.

<table>
<thead>
<tr>
<th></th>
<th>January 1, 2012</th>
<th>December 31, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vested benefit obligation</td>
<td>£1,500</td>
<td>£1,900</td>
</tr>
<tr>
<td>Accumulated benefit obligation</td>
<td>1,900</td>
<td>2,730</td>
</tr>
<tr>
<td>Defined benefit obligation</td>
<td>2,500</td>
<td>3,300</td>
</tr>
<tr>
<td>Plan assets (fair value)</td>
<td>1,700</td>
<td>2,620</td>
</tr>
<tr>
<td>Discount (interest) rate</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Pension asset/liability</td>
<td>800</td>
<td>?</td>
</tr>
<tr>
<td>Service cost for the year</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Contributions (funding in 2012)</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>Benefits paid in 2012</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

Instructions
(a) Compute the actual return on the plan assets in 2012.
(b) Compute the amount of net gain or loss for 2012.
(c) Compute the amount of the other comprehensive income (G/L) as of December 31, 2012. (Assume the January 1, 2012, balance was zero.)

E20-13  (Worksheet for E20-12)  Using the information in E20-12 about Erickson Company’s defined benefit pension plan, prepare a 2012 pension worksheet with supplementary schedules of computations. Prepare the journal entries at December 31, 2012, to record pension expense and related pension transactions. Also, indicate the pension amounts reported in the statement of financial position.

E20-14  (Pension Expense, Journal Entries)  Latoya Company provides the following selected information related to its defined benefit pension plan for 2012.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension asset/liability (January 1)</td>
<td>$25,000 Cr.</td>
</tr>
<tr>
<td>Accumulated benefit obligation (December 31)</td>
<td>400,000</td>
</tr>
<tr>
<td>Actual return on plan assets</td>
<td>67,500</td>
</tr>
<tr>
<td>Contributions (funding in 2012)</td>
<td>50,000</td>
</tr>
<tr>
<td>Discount (interest) rate</td>
<td>10%</td>
</tr>
<tr>
<td>Defined benefit obligation (January 1)</td>
<td>700,000</td>
</tr>
<tr>
<td>Service cost</td>
<td>80,000</td>
</tr>
</tbody>
</table>

Instructions
(a) Compute pension expense and prepare the journal entry to record pension expense and the employer’s contribution to the pension plan in 2012. Preparation of a pension worksheet is not required. Benefits paid in 2012 were $35,000.
(b) Indicate the pension-related amounts that would be reported in the company’s statement of comprehensive income and statement of financial position for 2012.
E20-15 (Pension Worksheet—Missing Amounts) The accounting staff of Usher Inc. has prepared the following pension worksheet. Unfortunately, several entries in the worksheet are not decipherable. The company has asked your assistance in completing the worksheet and completing the accounting tasks related to the pension plan for 2012.

### Pension Worksheet—Usher Inc.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>Annual Pension Expense</td>
<td>Cash</td>
<td>OCI—Gain/Loss</td>
<td>Pension Asset/Liability</td>
<td>Defined Benefit Obligation</td>
<td>Plan Assets</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Balance, Jan. 1, 2012</td>
<td>1,200 Cr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Service cost</td>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Interest expense</td>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Interest revenue</td>
<td>(3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Contributions</td>
<td>800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Benefits</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Asset gain</td>
<td>(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Liability loss</td>
<td>(5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Journal entry</td>
<td>(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Accumulated OCI, Dec. 31, 2011</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Balance, Dec. 31, 2012</td>
<td>1,225</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Instructions

(a) Determine the missing amounts in the 2012 pension worksheet, indicating whether the amounts are debits or credits.

(b) Prepare the journal entry to record 2012 pension expense for Usher Inc.

E20-16 (Postretirement Benefit Expense Computation) Kreter Co. provides the following information about its postretirement benefit plan for the year 2012.

- Service cost: $45,000
- Contribution to the plan: $10,000
- Actual return on plan assets (at 8%): $8,800
- Benefits paid: $20,000
- Plan assets at January 1, 2012: $110,000
- Defined postretirement benefit obligation at January 1, 2012: $330,000
- Discount (interest) rate: 8%

### Instructions

Compute the postretirement benefit expense for 2012.

E20-17 (Postretirement Benefit Worksheet) Using the information in E20-16, prepare a worksheet inserting January 1, 2012, balances, and showing December 31, 2012, balances. Prepare the journal entry recording postretirement benefit expense.

E20-18 (Postretirement Benefit Expense Computation) Garner Inc. provides the following information related to its postretirement benefits for the year 2012.

- Defined postretirement benefit obligation at January 1, 2012: $710,000
- Actual return on plan assets (at 10%): $34,000
- Discount (interest) rate: 10%
- Service cost: $83,000

### Instructions

Compute postretirement benefit expense for 2012.

E20-19 (Postretirement Benefit Expense Computation) Englehart Co. provides the following information about its postretirement benefit plan for the year 2012.

- Service cost: €90,000
- Contribution to the plan: €56,000
- Actual return on plan assets: €62,000

### Instructions

Compute postretirement benefit expense for 2012.
### Problems

**Benefits paid**

- Plan assets at January 1, 2012: 40,000
- Defined postretirement benefit obligation at January 1, 2012: 710,000
- Accumulated OCI (Loss) at January 1, 2012: 760,000
- Discount (interest) rate: 100,000 Dr.

#### Instructions

Compute the postretirement benefit expense for 2012.


**E20-21 (Postretirement Benefit Worksheet—Missing Amounts)** The accounting staff of Holder Inc. has prepared the following postretirement benefit worksheet. Unfortunately, several entries in the worksheet are not decipherable. The company has asked your assistance in completing the worksheet and completing the accounting tasks related to the pension plan for 2012.

#### Postretirement Benefit Worksheet—Holder Inc.

<table>
<thead>
<tr>
<th>Items</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance, Jan. 1, 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>290,000</td>
<td></td>
<td>Memo Record</td>
</tr>
<tr>
<td>Service cost</td>
<td></td>
<td>(1)</td>
<td></td>
<td></td>
<td>56,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest expense</td>
<td></td>
<td>(2)</td>
<td></td>
<td></td>
<td>36,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest revenue</td>
<td></td>
<td>(3)</td>
<td></td>
<td></td>
<td>10,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributions</td>
<td></td>
<td>66,000</td>
<td></td>
<td></td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td>5,000</td>
<td></td>
<td></td>
<td>5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset loss</td>
<td></td>
<td>8,800</td>
<td></td>
<td></td>
<td>(5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal entry for 2012</td>
<td></td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
<td>(9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulated OCI, Dec. 31, 2011</td>
<td>18,200 Dr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance, Dec. 31, 2012</td>
<td>27,000 Dr.</td>
<td>314,900 Cr.</td>
<td>497,900 Cr.</td>
<td>183,000 Dr.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Instructions

(a) Determine the missing amounts in the 2012 postretirement worksheet, indicating whether the amounts are debits or credits.
(b) Prepare the journal entry to record 2012 postretirement expense for Holder Inc.
(c) What discount rate is Holder using in accounting for the interest on its other postretirement benefit plan? Explain.

---

**PROBLEMS**

**P20-1 (2-Year Worksheet)** On January 1, 2012, Harrington Company has the following defined benefit pension plan balances.

- Defined benefit obligation: 4,500,000
- Fair value of plan assets: 4,200,000

The interest (settlement) rate applicable to the plan is 10%. On January 1, 2013, the company amends its pension agreement so that past service costs of $500,000 are created. Other data related to the pension plan are as follows.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service cost</td>
<td>150,000</td>
<td>180,000</td>
</tr>
<tr>
<td>Contributions (funding) to the plan</td>
<td>240,000</td>
<td>285,000</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>200,000</td>
<td>280,000</td>
</tr>
<tr>
<td>Actual return on plan assets</td>
<td>420,000</td>
<td>260,000</td>
</tr>
</tbody>
</table>
Instructions
(a) Prepare a pension worksheet for the pension plan for 2012 and 2013.
(b) For 2013, prepare the journal entry to record pension-related amounts.

P20-2 (3-Year Worksheet, Journal Entries, and Reporting) Jackson Company adopts acceptable accounting for its defined benefit pension plan on January 1, 2011, with the following beginning balances: plan assets $200,000; defined benefit obligation $250,000. Other data relating to 3 years’ operation of the plan are shown below.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual service cost</td>
<td>$16,000</td>
<td>$19,000</td>
<td>$26,000</td>
</tr>
<tr>
<td>Discount (interest) rate</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Actual return on plan assets</td>
<td>20,000</td>
<td>22,000</td>
<td>24,000</td>
</tr>
<tr>
<td>Annual funding (contributions)</td>
<td>16,000</td>
<td>40,000</td>
<td>48,000</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>14,000</td>
<td>16,400</td>
<td>21,000</td>
</tr>
<tr>
<td>Past service cost (plan amended, 1/1/12)</td>
<td>160,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in actuarial assumptions establishes a December 31, 2013, defined benefit obligation of:</td>
<td>520,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Instructions
(a) Prepare a pension worksheet presenting all 3 years’ pension balances and activities.
(b) Prepare the journal entries (from the worksheet) to reflect all pension plan transactions and events at December 31 of each year.
(c) Indicate the pension-related amounts reported in the financial statements for 2013.

P20-3 (Pension Expense, Journal Entries) Gottschalk Company sponsors a defined benefit plan for its 100 employees. On January 1, 2012, the company’s actuary provided the following information.

- Pension plan assets (fair value and market-related asset value) £200,000
- Accumulated benefit obligation 260,000
- Defined benefit obligation 380,000

The average remaining service period for the participating employees is 10 years. All employees are expected to receive benefits under the plan. On December 31, 2012, the actuary calculated that the present value of future benefits earned for employee services rendered in the current year amounted to £52,000; the defined benefit obligation was £490,000; fair value of pension assets was £276,000; the accumulated benefit obligation amounted to £365,000. The discount (interest) rate is 10%. The actual return on plan assets is £11,000. The company’s current year’s contribution to the pension plan amounted to £65,000. No benefits were paid during the year.

Instructions
(a) Determine the components of pension expense that the company would recognize in 2012. (With only one year involved, you need not prepare a worksheet.)
(b) Prepare the journal entry to record the pension expense and the company’s funding of the pension plan in 2012.
(c) Compute the amount of the 2012 increase/decrease in gains or losses.
(d) Indicate the pension amounts reported in the financial statement as of December 31, 2012.

P20-4 (Pension Expense, Journal Entries for 2 Years) Gordon Company sponsors a defined benefit pension plan. The following information related to the pension plan is available for 2012 and 2013.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets (fair value), December 31</td>
<td>$699,000</td>
<td>$849,000</td>
</tr>
<tr>
<td>Defined benefit obligation, January 1</td>
<td>700,000</td>
<td>800,000</td>
</tr>
<tr>
<td>Pension asset/liability, January 1</td>
<td>140,000 Cr.</td>
<td>?</td>
</tr>
<tr>
<td>Service cost</td>
<td>60,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Actual return on plan assets</td>
<td>24,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Contributions (funding)</td>
<td>115,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Accumulated benefit obligation, December 31</td>
<td>500,000</td>
<td>550,000</td>
</tr>
<tr>
<td>Discount (interest) rate</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Instructions
(a) Compute pension expense for 2012 and 2013.
(b) Prepare the journal entries to record the pension expense and the company’s funding of the pension plan for both years.
Hiatt Toothpaste Company initiates a defined benefit pension plan for its 50 employees on January 1, 2012. The insurance company which administers the pension plan provided the following selected information for the years 2012, 2013, and 2014.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets (fair value)</td>
<td>€50,000</td>
<td>€85,000</td>
<td>€180,000</td>
</tr>
<tr>
<td>Vested benefit obligation</td>
<td>45,000</td>
<td>165,000</td>
<td>292,000</td>
</tr>
<tr>
<td>Defined benefit obligation</td>
<td>60,000</td>
<td>200,000</td>
<td>324,000</td>
</tr>
<tr>
<td>Net (gain) loss</td>
<td>-0-</td>
<td>78,400</td>
<td>5,800</td>
</tr>
<tr>
<td>Employer’s funding contribution (made at end of year)</td>
<td>50,000</td>
<td>60,000</td>
<td>105,000</td>
</tr>
</tbody>
</table>

There were no balances as of January 1, 2012, when the plan was initiated. The actual return on plan assets was 10% over the 3-year period, but the discount (interest) rate was 13% in 2012, 11% in 2013, and 8% in 2014. The service cost component of net periodic pension expense amounted to the following: 2012, €60,000; 2013, €85,000; and 2014, €119,000. No benefits were paid in 2012, €30,000 of benefits were paid in 2013, and €18,500 of benefits were paid in 2014 (all benefits paid at end of year).

**Instructions**
(Round to the nearest euro.)

(a) Calculate the amount of net periodic pension expense that the company would recognize in 2012, 2013, and 2014.

(b) Prepare the journal entries to record net periodic pension expense, employer’s funding contribution, and related pension amounts for the years 2012, 2013, and 2014.

Aykroyd Inc. has sponsored a non-contributory, defined benefit pension plan for its employees since 1989. Prior to 2012, cumulative net pension expense recognized equaled cumulative contributions to the plan. Other relevant information about the pension plan on January 1, 2012, is as follows.

1. The company has 200 employees. All these employees are expected to receive benefits under the plan.
2. The defined benefit obligation amounted to $5,000,000 and the fair value of pension plan assets was $3,000,000. The market-related asset value was also $3,000,000.

On December 31, 2012, the defined benefit obligation and the vested benefit obligation were $4,850,000 and $4,025,000, respectively. The fair value of the pension plan assets amounted to $4,100,000 at the end of the year. A 10% discount rate was used in the actuarial present value computations in the pension plan. The present value of benefits attributed by the pension benefit formula to employee service in 2012 amounted to $200,000. The employer’s contribution to the plan assets amounted to $775,000 in 2012. This problem assumes no payment of pension benefits.

**Instructions**
(Round all amounts to the nearest dollar.)

(a) Compute pension expense for the year 2012.

(b) Prepare the journal entries required to report the accounting for the company’s pension plan for 2012.

(c) Compute the amount of the 2012 increase/decrease in net gains or losses in 2012.

Hanson Corp. sponsors a defined benefit pension plan for its employees. On January 1, 2012, the following balances related to this plan.

<table>
<thead>
<tr>
<th></th>
<th>£520,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets (fair value)</td>
<td>700,000</td>
</tr>
<tr>
<td>Defined benefit obligation</td>
<td>180,000 Cr.</td>
</tr>
<tr>
<td>Pension asset/liability</td>
<td>91,000</td>
</tr>
</tbody>
</table>

As a result of the operation of the plan during 2012, the actuary provided the additional data on page 1104 at December 31, 2012.
Instructions

Using the preceding data, compute pension expense for Hanson Corp. for the year 2012 by preparing a pension worksheet that shows the journal entry for pension expense.

P20-8 (Comprehensive 2-Year Worksheet) Lemke Company sponsors a defined benefit pension plan for its employees. The following data relate to the operation of the plan for the years 2012 and 2013.

<table>
<thead>
<tr>
<th>Year</th>
<th>Defined benefit obligation, January 1</th>
<th>$600,000</th>
<th>Plan assets (fair value), January 1</th>
<th>410,000</th>
<th>Pension asset/liability, January 1</th>
<th>$190,000 Cr.</th>
<th>Service cost</th>
<th>40,000</th>
<th>Discount (interest) rate</th>
<th>10%</th>
<th>Actual return on plan assets</th>
<th>36,000</th>
<th>61,000</th>
<th>Contributions in 2012</th>
<th>97,000</th>
<th>81,000</th>
<th>Benefits paid retirees</th>
<th>31,500</th>
<th>54,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Increase in defined benefit obligation due to changes in actuarial assumptions</td>
<td>87,000</td>
<td>0</td>
<td>Benefits paid retirees</td>
<td>31,500</td>
<td>54,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Accumulated benefit obligation at December 31</td>
<td>721,800</td>
<td>789,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vested benefit obligation at December 31</td>
<td>464,000</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Instructions

(a) Prepare a pension worksheet presenting both years 2012 and 2013.
(b) Prepare the journal entries (from the worksheet) to reflect all pension plan transactions and events at December 31 of each year.
(c) For 2013, indicate the pension amounts reported in the financial statements.

P20-9 (Comprehensive 2-Year Worksheet) Hobbs Co. has the following defined benefit pension plan balances on January 1, 2012.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined benefit obligation</td>
<td>€4,600,000</td>
<td></td>
</tr>
<tr>
<td>Fair value of plan assets</td>
<td>4,600,000</td>
<td></td>
</tr>
</tbody>
</table>

The discount (interest) rate applicable to the plan is 10%. On January 1, 2013, the company amends its pension agreement so that past service costs of €600,000 are created. Other data related to the pension plan are:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service cost</td>
<td>€150,000</td>
<td>€170,000</td>
</tr>
<tr>
<td>Contributions (funding) to the plan</td>
<td>200,000</td>
<td>184,658</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>220,000</td>
<td>280,000</td>
</tr>
<tr>
<td>Actual return on plan assets</td>
<td>252,000</td>
<td>350,000</td>
</tr>
</tbody>
</table>

Instructions

(a) Prepare a pension worksheet for the pension plan in 2012.
(b) Prepare any journal entries related to the pension plan that would be needed at December 31, 2012.
(c) Prepare a pension worksheet for 2013 and any journal entries related to the pension plan as of December 31, 2013.
(d) Indicate the pension-related amounts reported in the 2013 financial statements.

P20-10 (Pension Worksheet—Missing Amounts) Kramer Co. has prepared the following pension worksheet. Unfortunately, several entries in the worksheet are not decipherable. The company has asked your assistance in completing the worksheet and completing the accounting tasks related to the pension plan for 2012.
### Instructions

(a) Determine the missing amounts in the 2012 pension worksheet, indicating whether the amounts are debits or credits.

(b) Prepare the journal entry to record 2012 pension expense for Kramer Co.

(c) Determine for Kramer for 2012 the discount rate used to determine interest expense/revenue.

#### P20-11 (Pension Worksheet)

The following data relate to the operation of Kramer Co.’s pension plan in 2013. The pension worksheet for 2012 is provided in P20-10.

- Service cost: $59,000
- Actual return on plan assets: 32,000
- Annual contributions: 51,000
- Benefits paid retirees: 27,000

For 2013, Kramer will use a discount rate of 8%.

#### Instructions

(a) Prepare a pension worksheet for 2013.

(b) Prepare the journal entries (from the worksheet) to reflect all pension plan transactions and events at December 31.

(c) Indicate the pension amounts reported in the financial statements.

#### P20-12 (Pension Worksheet)

Chen Corp. sponsors a defined benefit pension plan for its employees. On January 1, 2013, the following balances related to this plan (amounts in ¥,000).

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan assets (market-related value)</td>
<td>¥270,000</td>
</tr>
<tr>
<td>Defined benefit obligation</td>
<td>¥340,000</td>
</tr>
<tr>
<td>Pension asset/liability</td>
<td>¥70,000 Cr.</td>
</tr>
<tr>
<td>OCI—Loss</td>
<td>¥39,000</td>
</tr>
</tbody>
</table>

As a result of the operation of the plan during 2013, the actuary provided the following additional data at December 31, 2013.

- Service cost for 2013: ¥45,000
- Actual return on plan assets in 2013: 27,000
- Contributions in 2013: 65,000
- Benefits paid retirees in 2013: 41,000
- Discount (interest) rate: 7%

#### Instructions

(a) Compute pension expense for Chen Corp. for the year 2013 by preparing a pension worksheet that shows the journal entry for pension expense.

(b) Indicate the pension amounts reported in the financial statements.
Chapter 20  Accounting for Pensions and Postretirement Benefits

P20-13  (Postretirement Benefit Worksheet)  Hollenbeck Foods Inc. sponsors a postretirement medical and dental benefit plan for its employees. The following balances relate to this plan on January 1, 2012.

<table>
<thead>
<tr>
<th>Plan assets</th>
<th>$200,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined postretirement benefit obligation</td>
<td>200,000</td>
</tr>
</tbody>
</table>

As a result of the plan’s operation during 2012, the following additional data are provided by the actuary.

- Service cost for 2012 is $70,000
- Discount (interest) rate is 10%
- Contributions to plan in 2012 are $65,000
- Actual return on plan assets is $15,000
- Benefits paid to employees are $44,000

**Instructions**

(a) Using the preceding data, compute the net periodic postretirement benefit cost for 2012 by preparing a worksheet that shows the journal entry for postretirement expense and the year-end balances in the related postretirement benefit memo accounts. (Assume that contributions and benefits are paid at the end of the year.)

(b) Prepare any journal entries related to the postretirement plan for 2012 and indicate the postretirement amounts reported in the financial statements for 2012.

P20-14  (Postretirement Benefit Worksheet—2 Years)  Elton Co. has the following postretirement benefit plan balances on January 1, 2012.

| Defined postretirement benefit obligation | €2,250,000 |
| Fair value of plan assets               | 2,250,000 |

The discount (interest) rate applicable to the plan is 10%. On January 1, 2013, the company amends the plan so that past service costs of €175,000 are created. Other data related to the plan are:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service costs</td>
<td>€75,000</td>
<td>€85,000</td>
</tr>
<tr>
<td>Contributions (funding) to the plan</td>
<td>45,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>40,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Actual return on plan assets</td>
<td>140,000</td>
<td>120,000</td>
</tr>
</tbody>
</table>

**Instructions**

(a) Prepare a worksheet for the postretirement plan in 2012.

(b) Prepare any journal entries related to the postretirement plan that would be needed at December 31, 2012.

(c) Prepare a worksheet for 2013 and any journal entries related to the postretirement plan as of December 31, 2013.

(d) Indicate the postretirement-benefit–related amounts reported in the 2013 financial statements.

**CONCEPTS FOR ANALYSIS**

CA20-1  (Pension Terminology and Theory)  Many business organizations have been concerned with providing for the retirement of employees since the late 1800s. During recent decades, a marked increase in this concern has resulted in the establishment of private pension plans in most large companies and in many medium- and small-sized ones.

The substantial growth of these plans, both in numbers of employees covered and in amounts of retirement benefits, has increased the significance of pension cost in relation to the financial position, results of operations, and cash flows of many companies. In examining the costs of pension plans, a public accountant encounters certain terms. The components of pension costs that the terms represent must be dealt with appropriately if IFRS is to be reflected in the financial statements of entities with pension plans.
Instructions
(a) Define a private pension plan. How does a contributory pension plan differ from a non-contributory plan?
(b) Differentiate between “accounting for the employer” and “accounting for the pension fund.”
(c) Explain the terms “funded” and “pension liability” as they relate to:
   (1) The pension fund.
   (2) The employer.
(d) (1) Discuss the theoretical justification for accrual recognition of pension costs.
   (2) Discuss the relative objectivity of the measurement process of accrual versus cash (pay-as-you-go) accounting for annual pension costs.
(e) Distinguish among the following as they relate to pension plans.
   (1) Service cost.
   (2) Past service costs.
   (3) Vested benefits.

CA20-2 (Pension Terminology) The following items appear on Hollingsworth Company’s financial statements.

1. Under the caption Assets:
   Pension asset/liability.
2. Under the caption Liabilities:
   Pension asset/liability.
3. Under the caption Equity:
   Asset loss as a component of Accumulated Other Comprehensive Income.
4. On the income statement:
   Pension expense.

Instructions
Explain the significance of each of the items above on corporate financial statements. (Note: All items set forth above are not necessarily to be found on the statements of a single company.)

CA20-3 (Basic Terminology) In examining the costs of pension plans, Leah Hutcherson, public accountant, encounters certain terms. The components of pension costs that the terms represent must be dealt with appropriately if IFRS is to be reflected in the financial statements of entities with pension plans.

Instructions
(a) (1) Explain the application of accrual concepts to recognition of pension costs.
   (2) Discuss the relative verifiability and neutrality of the measurement process of accrual versus cash (pay-as-you-go) accounting for annual pension costs.
(b) Explain the following terms as they apply to accounting for pension plans.
   (1) Fair value of pension assets.
   (2) Defined benefit obligation.
   (3) Net interest.
(c) What information should be disclosed about a company’s pension plans in its financial statements and its notes?

CA20-4 (Major Pension Concepts) Lyons Corporation is a medium-sized manufacturer of paperboard containers and boxes. The corporation sponsors a non-contributory, defined benefit pension plan that covers its 250 employees. Tim Shea has recently been hired as president of Lyons Corporation. While reviewing last year’s financial statements with Anita Kroll, controller, Shea expressed confusion about several of the items in the footnote to the financial statements relating to the pension plan. In part, the footnote reads as follows.

Note J. The company has a defined benefit pension plan covering substantially all of its employees. The benefits are based on years of service and the employee’s compensation during the last four years of employment. The company’s funding policy is to contribute annually the maximum amount allowed under the tax law. Contributions are intended to provide for benefits expected to be earned in the future as well as those earned to date.
The net periodic pension expense on Lyons Corporation’s comparative income statement was £72,000 in 2013 and £57,680 in 2012.

The following are selected figures from the plan’s funded status and amounts recognized in the Lyons Corporation’s statement of financial position at December 31, 2013 (£000 omitted).

| Defined benefit obligation | £(1,200) |
| Plan assets at fair value   | 1,050    |
| Defined benefit obligation in excess of plan assets | £ (150) |

Given that Lyons Corporation’s work force has been stable for the last 6 years, Shea could not understand the increase in the net periodic pension expense. Kroll explained that the net periodic pension expense consists of several elements, some of which may increase or decrease the net expense.

Instructions
(a) The determination of the net periodic pension expense is a function of two elements. List and briefly describe each of the elements.
(b) Describe the major difference and the major similarity between the vested benefit obligation and the defined benefit obligation.
(c) (1) Explain why pension gains and losses are not recognized in net income in the period in which they arise.
(2) Briefly describe how pension gains and losses are recognized.

CA20-5 (Implications of International Accounting Standard No. 19) Ruth Moore and Carl Nies have to do a class presentation on the pension pronouncement “Employee Benefits.” In developing the class presentation, they decided to provide the class with a series of questions related to pensions and then discuss the answers in class. Given that the class has all read IAS 19, they felt this approach would provide a lively discussion. Here are the situations:

1. In an article prior to the recent amendments to IAS 19, it was reported that the discount rates used by the largest 200 companies for pension reporting ranged from 5% to 11%. How can such a situation exist, and does the pension pronouncement alleviate this problem?
2. An article indicated that when IAS 19 was issued, it caused an increase in the liability for pensions for a significant number of companies. Why might this situation occur?
3. A recent article noted that most gains and losses are recognized in net income. However, pension accounting has long been recognized as an exception—an area of accounting in which at least some dampening of market swings is appropriate. This is because pension funds are managed so that their performance is insulated from the extremes of short-term market swings. A pension expense that reflects the volatility of market swings might, for that reason, convey information of little relevance. Are these statements true?
4. Many companies held assets twice as large as they needed to fund their pension plans at one time. Are these assets reported on the statement of financial position of these companies per the pension pronouncement? If not, where are they reported?
5. Understanding the impact of the changes required in pension reporting requires detailed information about its pension plan(s) and an analysis of the relationship of many factors, particularly:
   (a) The type of plan(s) and any significant amendments.
   (b) The plan participants.
   (c) The funding status.
   (d) The actuarial funding method and assumptions currently used.
   What impact does each of these items have on financial statement presentation?

Instructions
What answers do you believe Ruth and Carl gave to each of these questions?

CA20-6 (Non-Vested Employees—An Ethical Dilemma) Cardinal Technology recently merged with College Electronix, a computer graphics manufacturing firm. In performing a comprehensive audit of CE’s accounting system, Richard Nye, internal audit manager for Cardinal Technology, discovered that the new subsidiary did not capitalize pension assets and liabilities, subject to the requirements of IFRS.

The fair value of CE’s pension assets was $15.5 million, the vested benefit obligation was $12.9 million, and the defined benefit obligation was $17.4 million. Nye reported this audit finding to Renée Selma,
the newly appointed controller of CE. A few days later, Selma called Nye for his advice on what to do. Selma started her conversation by asking, “Can’t we eliminate the negative income effect of our pension dilemma simply by terminating the employment of non-vested employees before the end of our fiscal year?”

Instructions
How should Nye respond to Selma’s remark about firing non-vested employees?

Financial Reporting Problem

Marks and Spencer plc (M&S)

The financial statements of M&S are presented in Appendix 5B or can be accessed at the book’s companion website, www.wiley.com/college/kieso.

Instructions
Refer to M&S’s financial statements and the accompanying notes to answer the following questions.
(a) What kind of pension plan does M&S provide its employees?
(b) What was M&S’s pension expense for 2008 and 2007?
(c) What is the impact of M&S’s pension plans for 2008 on its financial statements?
(d) What information does M&S provide on the target allocation of its pension assets? How do the allocations relate to the expected returns on these assets?

Comparative Analysis Case

Cadbury and Nestlé

Instructions
Go to the book’s companion website and use information found there to answer the following questions related to Cadbury and Nestlé.
(a) What kind of pension plans do Cadbury and Nestlé provide their employees?
(b) What net periodic pension expense (cost) did Cadbury and Nestlé report in 2008?
(c) What is the year-end 2008 funded status of Cadbury’s and Nestlé’s plans?
(d) What relevant rates were used by Cadbury and Nestlé in computing their pension amounts?
(e) Compare the expected benefit payments and contributions for Cadbury and Nestlé.

International Reporting Case

Walgreens (USA) is the leading drug store chain in the United States. The company provided the disclosures shown on page 1110 related to its retirement benefits in its 2009 annual report.
14. Retirement Benefits (in past)
The principal retirement plan for employees is the Walgreen Profit-Sharing Retirement Plan, to which both the Company and the employees contribute.

The Company provides certain health insurance benefits for retired employees who meet eligibility requirements, including age, years of service and date of hire. The costs of these benefits are accrued over the period earned. The Company's postretirement health benefit plans are not funded.

Components of net periodic benefit costs (In millions):

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service cost</td>
<td>$12</td>
<td>$14</td>
</tr>
<tr>
<td>Interest cost</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>Amortization of actuarial loss</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Amortization of prior service cost</td>
<td>(6)</td>
<td>(4)</td>
</tr>
<tr>
<td>Special retirement benefit expense</td>
<td>4</td>
<td>—</td>
</tr>
<tr>
<td>Curtailment income</td>
<td>(16)</td>
<td>—</td>
</tr>
<tr>
<td>Total postretirement benefit cost</td>
<td>$24</td>
<td>$39</td>
</tr>
</tbody>
</table>

Funded status (In millions):

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funded status</td>
<td>$(328)</td>
<td>$(371)</td>
</tr>
<tr>
<td>Unrecognized actuarial gain</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Unrecognized prior service cost</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Accrued benefit cost at August 31</td>
<td>$(328)</td>
<td>$(371)</td>
</tr>
</tbody>
</table>

Amounts recognized in the Consolidated Balance Sheets (In millions):

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current liabilities (present value of expected 2010 net benefit payments)</td>
<td>$ (11)</td>
<td>$ (8)</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td>(317)</td>
<td>(363)</td>
</tr>
<tr>
<td>Net liability recognized at August 31</td>
<td>$(328)</td>
<td>$(371)</td>
</tr>
</tbody>
</table>

Amounts recognized in accumulated other comprehensive loss (In millions):

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior service credit</td>
<td>$(141)</td>
<td>$(57)</td>
</tr>
<tr>
<td>Net actuarial loss</td>
<td>104</td>
<td>77</td>
</tr>
</tbody>
</table>

The discount rate assumption used to compute the postretirement benefit obligation at year-end was 6.15% for 2009 and 7.30% for 2008. The discount rate assumption used to determine net periodic benefit cost was 7.50%, 6.50% and 6.25% for fiscal years ending 2009, 2008 and 2007, respectively.
Instructions
Use the information on Walgreens to respond to the following requirements.
(a) What are the key differences in accounting for pensions under U.S. GAAP and IFRS?
(b) Briefly explain how differences in U.S. GAAP and IFRS for pensions would affect the amounts reported in the financial statements.
(c) In light of the differences identified in (b), would Walgreens’ income and equity be higher or lower under U.S. GAAP compared to IFRS standards? Explain.

Accounting, Analysis, and Principles
PENCOMP’s statement of financial position at December 31, 2012, is as follows.

<table>
<thead>
<tr>
<th>PENCOMP, INC.</th>
<th>STATEMENT OF FINANCIAL POSITION</th>
<th>AS OF DECEMBER 31, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td><strong>Equity</strong></td>
</tr>
<tr>
<td>Plant and equipment</td>
<td>€2,000</td>
<td>Share capital</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(240)</td>
<td>Retained earnings</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total equity</strong></td>
</tr>
<tr>
<td>Inventory</td>
<td>1,800</td>
<td><strong>Liabilities</strong></td>
</tr>
<tr>
<td>Cash</td>
<td>438</td>
<td>Notes payable</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>2,238</td>
<td>Pension liability</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>€3,998</strong></td>
<td><strong>Total liabilities</strong></td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td><strong>€3,998</strong></td>
<td></td>
</tr>
</tbody>
</table>

Additional information concerning PENCOMP’s defined benefit pension plan is as follows.

- Defined benefit obligation at 12/31/12: €820.5
- Plan assets (fair value) at 12/31/12: 718.5
- Service cost for 2013: 42.0
- Discount (interest) rate: 10%
- Actual return on plan assets in 2013: 60.6
- Contributions to pension fund in 2013: 70.0
- Benefits paid during 2013: 40.0
- Accumulated OCI (net loss due to changes in actuarial assumptions and deferred net losses on plan assets) at 12/31/12; included in retained earnings balance: 92.0

Other information about PENCOMP is as follows.

- Salary expense, all paid with cash during 2013: €700.0
- Sales, all for cash: 3,000.0
- Purchases, all for cash: 2,000.0
- Inventory at 12/31/2013: 1,800.0

Property originally cost €2,000 and is depreciated on a straight-line basis over 25 years with no residual value.
Interest on the note payable is 10% annually and is paid in cash on 12/31 of each year.
Dividends declared and paid are €200 in 2013.

Accounting
Prepare an income statement for 2013 and a statement of financial position as of December 31, 2013. Also, prepare the pension expense journal entry for the year ended December 31, 2013. Round to the nearest tenth (e.g., round 2.87 to 2.9).
Analysis

Compute return on equity for PENCOMP for 2013 (assume equity is equal to year-end equity). Do you think an argument can be made for including some or even all of the asset/liability gains and losses in the numerator of return on equity? Illustrate that calculation.

Principles

Explain a rationale for why the IASB has (so far) decided to exclude from the current-period income statement the effects of gains and losses due to changes in actuarial assumptions.

BRIDGE TO THE PROFESSION

Professional Research

Jack Kelly Company has grown rapidly since its founding in 2002. To instill loyalty in its employees, Kelly is contemplating establishment of a defined benefit plan. Kelly knows that lenders and potential investors will pay close attention to the impact of the pension plan on the company’s financial statements, particularly any gains or losses that develop in the plan. Kelly has asked you to conduct some research on the accounting for gains and losses in a defined benefit plan.

Instructions

Access the IFRS authoritative literature at the IASB website (http://eifrs.iasb.org/). When you have accessed the documents, you can use the search tool in your Internet browser to respond to the following questions. (Provide paragraph citations.)

(a) Briefly describe how pension gains and losses are accounted for.

(b) Explain the rationale behind the accounting method described in part (a).

(c) What is the related pension asset or liability that may show up on the statement of financial position? When will each of these situations occur?
Professional Simulation

In this simulation, you are asked to address questions related to the accounting for pensions. Prepare responses to all parts.

Melanie Vail Corp. sponsors a defined benefit pension plan for its employees. On January 1, 2012, the following balances relate to this plan.

- Plan assets: $480,000
- Defined benefit obligation: $625,000
- Pension asset/liability: $145,000 Cr.

As a result of the operation of the plan during 2012, the following additional data are provided by the actuary for 2012.

- Service cost: $90,000
- Discount (interest) rate: 9%
- Actual return on plan assets: $57,000
- Unexpected loss from change in defined benefit obligation, due to change in actuarial predictions: $76,000
- Contributions: 99,000
- Benefits paid retirees: 85,000

(a) Use a computer spreadsheet to prepare a pension worksheet. On the pension worksheet, compute pension expense, pension asset/liability, defined benefit obligation, plan assets, and other comprehensive income.

(b) Compute the same items as in (a), assuming that the discount rate is now 7%.

Prepare the journal entry to record pension expense in 2012.

Prepare a schedule reconciling the funded status of the plan with the pension amount reported on the statement of financial position.

Remember to check the book’s companion website to find additional resources for this chapter.