CHAPTER 20 ACCOUNTING FOR PENSIONS AND POSTRETIREMENT BENEFITS

This IFRS Supplement provides expanded discussions of accounting guidance under International Financial Reporting Standards (IFRS) for the topics in Intermediate Accounting. The discussions are organized according to the chapters in *Intermediate Accounting* (13th or 14th Editions) and therefore can be used to supplement the U.S. GAAP requirements as presented in the textbook. Assignment material is provided for each supplement chapter, which can be used to assess and reinforce student understanding of IFRS.

USING A PENSION WORKSHEET

U.S. GAAP PERSPECTIVE

IFRS and U.S. GAAP separate pension plans into defined contribution plans and defined benefit plans. The accounting for defined contribution plans is similar.

We will now illustrate the basic computation of pension expense using the first three components: (1) service cost, (2) interest on the liability, and (3) actual return on plan assets. We discuss the other pension-expense components (amortization of past service cost, and gains and losses) 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.[1] Illustration 20-1 shows the format of the **pension worksheet**.

ILLUSTRATION 20-1
Basic Format of Pension Worksheet

Pension Worksheet

	A	B	C	D	F	G
1		General Journal Entries			Memo Record	
2	Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets
3						
4						
5						
6						

Sheet1 Sheet2 Sheet3

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 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 transaction 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.

[1]The use of a pension entry worksheet is recommended and illustrated by Paul B. W. Miller, "The New Pension Accounting (Part 2)," *Journal of Accountancy* (February 1987), pp. 86–94.

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.

Actual return on plan assets is $10,000.

Funding contributions are $8,000.

Benefits paid to retirees during the year are $7,000.

Using the data presented above, the worksheet in Illustration 20-2 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.

ILLUSTRATION 20-2
Pension Worksheet—2011

Pension Worksheet—2011

	A	B	C	D	F	G
1		General Journal Entries			Memo Record	
2	Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets
3	Balance, Jan. 1, 2011			—	100,000 Cr.	100,000 Dr.
4	(a) Service cost	9,000 Dr.			9,000 Cr.	
5	(b) Interest cost	10,000 Dr.			10,000 Cr.	
6	(c) Actual return	10,000 Cr.				10,000 Dr.
7	(d) Contributions		8,000 Cr.			8,000 Dr.
8	(e) Benefits				7,000 Dr.	7,000 Cr.
9						
10						
11	Journal entry for 2011	9,000 Dr.	8,000 Cr.	1,000 Cr.*		
12	Balance, Dec. 31, 2011			1,000 Cr.**	112,000 Cr.	111,000 Dr.
13						
14	*$9,000 – $8,000 = $1,000					
15	**$112,000 – $111,000 = $1.000					

Sheet1 Sheet2 Sheet3

Entry (a) in Illustration 20-2 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 actual return on the plan assets, which increases the plan assets and decreases the pension expense. 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 benefit obligation.

Zarle makes the "formal journal entry" on December 31, which records the pension expense in 2011, as follows.

	2011	
Pension Expense	9,000	
Cash		8,000
Pension Asset/Liability		1,000

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 20-3 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.

Defined benefit obligation (Credit)	$(112,000)
Plan assets at fair value (Debit)	111,000
Pension asset/liability (Credit)	$ (1,000)

ILLUSTRATION 20-3
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.[2]

Amortization of Past Service Cost (PSC)

When either initiating (adopting) or amending a defined benefit plan, a company often provides benefits to employees for years of service before the date of initiation or amendment. As a result of this **past service cost (PSC)**, the defined benefit obligation is increased to recognize this additional liability. In many cases, the increase in the defined benefit obligation is substantial.

Should a company report an expense immediately for these past service costs? The IASB says it depends on when the benefits are vested. If the benefits from the amendment to the plan vest immediately, then the company should recognize the expense and related liability at the amendment date. If the benefits do not vest immediately, past service cost should be recognized as an expense on a straight-line basis over the average remaining period until the benefits become vested. **[2]**[3] The rationale for using the vesting date as the target date for recognition is that is when the liability is established.

To illustrate, assume that Hitchcock plc amends its defined pension plan on January 1, 2011, resulting in £300,000 of past service cost. The company has 300 active employees, of which 60 vest immediately (20%) and the other 240 (80%) vest in four years. The past service cost applicable to the vested employees is £60,000 and vests immediately. The unrecognized past service cost related to the unvested employees is £240,000

U.S. GAAP PERSPECTIVE

Both IFRS and U.S. GAAP compute unrecognized past service cost (PSC) (referred to as prior service cost in U.S. GAAP) in the same manner. However, IFRS recognizes any vested amounts immediately and spreads unvested amounts over the average remaining period to vesting. U.S. GAAP amortizes PSC over the remaining service lives of employees.

[2]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. **[1]** *For purposes of homework, assume that a pension asset, if present, meets the criteria for full recognition.*

[3]*For purposes of homework, assume that all past service costs are non-vested, unless stated otherwise.* After initially establishing the amortization schedule for past service costs, companies do not revise the schedule (e.g., due to changes in employee service lives) unless there is a plan curtailment or settlement. **[3]** Curtailments and settlements are discussed later in the chapter.

and is amortized over four years (£60,000 per year). The amortization of the past service costs for Hitchcock for the four years is computed as shown in Illustration 20-4.

ILLUSTRATION 20-4
Computation of Past Service Cost Amortization

Year	Beginning Balance in Unrecognized PSC	Amortization (Expense) Vested	Amortization (Expense) Unvested	Ending Balance in Unrecognized PSC
2011	£300,000	£60,000	£60,000	£180,000
2012			60,000	120,000
2013			60,000	60,000
2014			60,000	—0—

As a result, Hitchcock reports amortization of past service cost of £120,000 in 2011 and £60,000 in each of the years 2012, 2013, and 2014.

As indicated earlier, Hitchcock measures past service cost due to an increase in the liability resulting from the amendment (referred to as positive past service cost). 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. Both positive and negative past service cost adjustments are handled in the same manner, that is, adjust income immediately if vested and amortize the unvested amount over the average remaining period until vesting occurs. **[4]**

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 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.

Actual return on plan assets is $11,100.

Annual funding contributions are $20,000.

Benefits paid to retirees during the year are $8,000.

The past service cost (PSC) is not vested, and the average remaining period to vesting is three years. Amortization of PSC using the straight-line method is $27,200 ($81,600 ÷ 3).

Illustration 20-5 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 the new Unrecognized Past Service Cost. Entries (g), (h), (i), (k), and (l) are similar to the corresponding entries in 2011. Entry (j) records the 2012 amortization of unrecognized past service cost by debiting Pension Expense by $27,200 and crediting the Unrecognized Past Service Cost account by the same amount.

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	44,960	
Cash		20,000
Pension Asset/Liability		24,960

Pension Worksheet—2012

	A	B	C	D	F	G	H
1		General Journal Entries			Memo Record		
2	Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost
3	Balance, Dec. 31, 2011			1,000 Cr.	112,000 Cr.	111,000 Dr.	
4	(f) Past service cost				81,600 Cr.		81,600 Dr.
5	Balance, Jan. 1, 2012			1,000 Cr.	193,600 Cr.	111,000 Dr.	81,600 Dr.
6	(g) Service cost	9,500 Dr.			9,500 Cr.		
7	(h) Interest cost	19,360 Dr.[a]			19,360 Cr.		
8	(i) Actual return	11,100 Cr.				11,100 Dr.	
9	(j) Amortization of PSC	27,200 Dr.					27,200 Cr.
10	(k) Contributions		20,000 Cr.			20,000 Dr.	
11	(l) Benefits				8,000 Dr.	8,000 Cr.	
12							
13	Journal entry for 2012	44,960 Dr.	20,000 Cr.	24,960 Cr.			
14	Balance Dec. 31, 2012			25,960 Cr.	214,460 Cr.	134,100 Dr.	54,400 Dr.
15	[a]$19,360 = $193,600 × 10%						

Sheet1 Sheet2 Sheet3

ILLUSTRATION 20-5
Pension Worksheet—2012

Because the expense exceeds the funding, Zarle credits the Pension Asset/Liability account for the $24,960 difference. That account is a liability. In 2012, as in 2011, the balance of the Pension Asset/Liability account ($25,960) is equal to the net of the balances in the memo accounts, as shown in Illustration 20-6.

Defined benefit obligation (Credit)	$(214,460)
Plan assets at fair value (Debit)	134,100
Funded status	(80,360)
Unrecognized past service cost (Debit)	54,400
Pension asset/liability (Credit)	$ (25,960)

ILLUSTRATION 20-6
Pension Reconciliation Schedule—December 31, 2012

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

Gain or Loss

Of great concern to companies that have pension plans are the uncontrollable and unexpected swings in pension expense 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. If these gains or losses impact fully the financial statements in the period of realization or incurrence, substantial fluctuations in pension expense result.

Therefore, the IASB decided to reduce the volatility associated with pension expense by using **smoothing techniques** that dampen and in some cases fully eliminate the fluctuations.

U.S. GAAP PERSPECTIVE

U.S. GAAP does not permit choice of recognizing actuarial gains and losses in income immediately (either net income or other comprehensive income); actuarial gains and losses are reported in "Accumulated other comprehensive income" and amortized to income over remaining service lives.

Smoothing Unexpected Gains and Losses on Plan Assets

One component of pension expense, actual return on plan assets, reduces pension expense (assuming the actual return is positive). A large change in the actual return can substantially affect pension expense for a year. Assume a company has a 40 percent

return in the securities market for the year. Should this substantial, and perhaps one-time, event affect current pension expense?

Actuaries ignore current fluctuations when they develop a funding pattern to pay expected benefits in the future. They develop an **expected rate of return** and multiply it by an asset value weighted over a reasonable period of time to arrive at an **expected return on plan assets**. They then use this return to determine a company's funding pattern.

The IASB adopted the actuary's approach to dampen wide swings that might occur in the actual return. That is, a company includes the **expected return on the plan assets as a component of pension expense, not the actual return in a given year**. To achieve this goal, the company multiplies the expected rate of return by the fair value of the plan assets.

The difference between the expected return and the actual return is referred to as the **unexpected gain or loss**; the IASB uses the term **asset gains and losses**. **Asset gains** occur when actual return exceeds expected return; **asset losses** occur when actual return is less than expected return.

What happens to unexpected gains or losses in the accounting for pensions? Companies record asset gains and asset losses in an Unrecognized Net Gain or Loss account, combining them with unrecognized gains and losses accumulated in prior years.

To illustrate the computation of an unexpected gain or loss and its related accounting, assume that in 2013 Zarle Company has an actual return on plan assets of $12,000 when the expected return in $13,410 (the expected rate of return of 10 percent on plan assets times the beginning of the year plan assets). The unexpected asset loss of $1,410 ($12,000 − $13,410) is debited to Unrecognized Net Gain or Loss and credited to Pension Expense.

Smoothing Unexpected Gains and Losses on the Pension Liability

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 unexpected gains or losses from changes in the defined benefit obligation are called **liability gains and losses**.

Companies defer liability gains (resulting from unexpected decreases in the liability balance) and liability losses (resulting from unexpected increases). Companies combine the liability gains and losses in the same **Unrecognized Net Gain or Loss** account used for asset gains and losses. They accumulate the asset and liability gains and losses from year to year, off-balance-sheet, in a memo account.[4]

Corridor Amortization

The asset gains and losses and the liability gains and losses can offset each other. As a result, the accumulated total unrecognized net gain or loss may not grow very large. But, it is possible that no offsetting will occur and that the balance in the Unrecognized Net Gain or Loss account will continue to grow.

To limit the growth of the Unrecognized Net Gain or Loss account, the IASB uses the **corridor approach** for amortizing the account's accumulated balance when it gets too large. How large is too large? The IASB set a limit of 10 percent of the larger of the beginning balances of the defined benefit obligation or the fair value of the plan assets. **Above that size, the unrecognized net gain or loss balance is considered too large and must be amortized.**

[4]In *IAS 19*, asset gains and losses and liability gains and losses are collectively referred to as "actuarial gains and losses." **[5]** IFRS permits other accounting approaches for these gains and losses. We discuss these in a later section of this supplement.

To illustrate the corridor approach, data for Callaway Co.'s defined benefit obligation and plan assets over a period of six years are shown in Illustration 20-7.

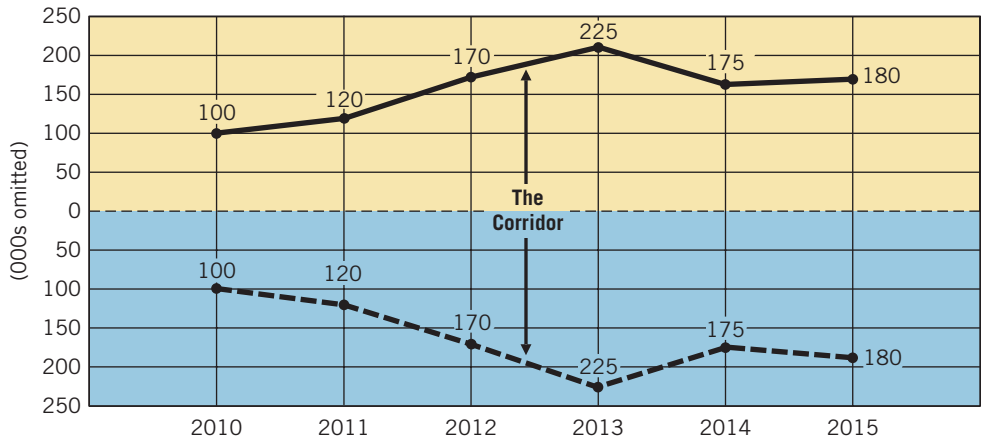
ILLUSTRATION 20-7
Computation of the Corridor

Beginning-of-the-Year Balances	Defined Benefit Obligation	Fair Value of Assets	Corridor* +/− 10%
2010	$1,000,000	$ 900,000	$100,000
2011	1,200,000	1,100,000	120,000
2012	1,300,000	1,700,000	170,000
2013	1,500,000	2,250,000	225,000
2014	1,700,000	1,750,000	175,000
2015	1,800,000	1,700,000	180,000

*The corridor becomes 10% of the larger (in colored type) of the defined benefit obligation or the fair value of plan assets.

How the corridor works becomes apparent when we portray the data graphically, as in Illustration 20-8.

ILLUSTRATION 20-8
Graphic Illustration of the Corridor



If the balance of the Unrecognized Net Gain or Loss account stays within the upper and lower limits of the corridor, no amortization is required. In that case, Callaway carries forward the unrecognized net gain or loss balance unchanged.

If amortization is required, the minimum amortization is the excess divided by the average remaining service period of active employees who are expected to receive benefits under the plan. Callaway may use any systematic method of amortization of unrecognized gains and losses in lieu of the minimum, provided it is greater than the minimum. It must use the method consistently for both gains and losses and must disclose the amortization method used.

Example of Unrecognized Gains/Losses

In applying the corridor, companies should include amortization of the excess unrecognized net gain or loss as a component of pension expense only if, at the **beginning of the year**, the unrecognized net gain or loss exceeded the corridor. That is, if no unrecognized net gain or loss exists at the beginning of the period, the company cannot recognize pension expense gains or losses in that period.

To illustrate the amortization of unrecognized net gains and losses, assume the following information for Soft-White, Inc.

	2011	2012	2013
		(beginning of the year)	
Defined benefit obligation	£2,100,000	£2,600,000	£2,900,000
Fair value of assets	2,600,000	2,800,000	2,700,000
Unrecognized net loss	–0–	400,000	300,000

If the average remaining service life of all active employees is 5.5 years, the schedule to amortize the unrecognized net loss is as shown in Illustration 20-9.

ILLUSTRATION 20-9
Corridor Test and Gain/Loss Amortization Schedule

Year	Defined Benefit Obligation[a]	Plan Assets[a]	Corridor[b]	Cumulative Unrecognized Net Loss[a]	Minimum Amortization of Loss (For Current Year)
2011	£2,100,000	£2,600,000	£260,000	£ –0–	£ –0–
2012	2,600,000	2,800,000	280,000	400,000	21,818[c]
2013	2,900,000	2,700,000	290,000	678,182[d]	70,579[d]

[a]All as of the beginning of the period.
[b]10% of the greater of defined benefit obligation or plan assets fair value.
[c]£400,000 − £280,000 = £120,000; £120,000 ÷ 5.5 = £21,818
[d]£400,000 − £21,818 + £300,000 = £678,182; £678,182 − £290,000 = £388,182; £388,182 ÷ 5.5 = £70,579.

As Illustration 20-9 indicates, the loss recognized in 2012 increased pension expense by £21,818. This amount is small in comparison with the total loss of £400,000. It indicates that the corridor approach dampens the effects (reduces volatility) of these gains and losses on pension expense.

The rationale for the corridor is that gains and losses result from refinements in estimates as well as real changes in economic value; over time, some of these gains and losses will offset one another. It therefore seems reasonable that Soft-White should not fully recognize gains and losses as a component of pension expense in the period in which they arise.

Summary of Calculations for Asset Gain or Loss

The difference between the actual return on plan assets and the expected return on plan assets is the **unexpected (deferred) asset gain or loss** component. This component defers the difference between the actual return and expected return on plan assets in computing current-year pension expense. Thus, after considering this component, **it is really the expected return on plan assets (not the actual return) that determines current pension expense**.

Companies determined the amortized net gain or loss by amortizing the unrecognized gain or loss at the beginning of the year subject to the corridor limitation. In other words, **if the unrecognized net gain or loss is greater than the corridor, these net gains and losses are subject to amortization**. Soft-White computed this minimum amortization by dividing the net gains or losses subject to amortization by the average remaining service period. When the current-year unexpected gain or loss is combined with the amortized net gain or loss, we determine the current-year gain or loss. Illustration 20-10 summarizes these gain and loss computations.

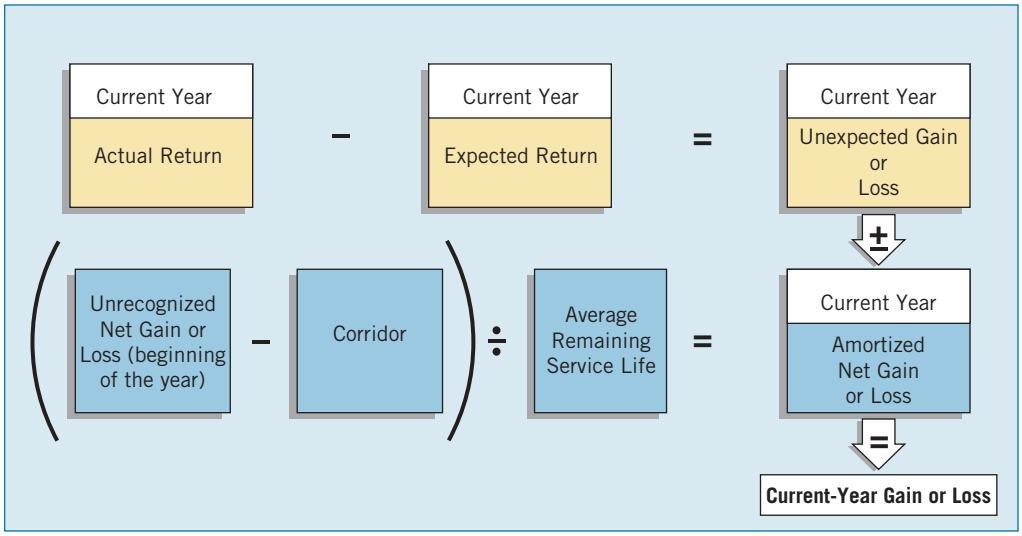


ILLUSTRATION 20-10
Graphic Summary of Gain or Loss Computation

In essence, these gains and losses are subject to *triple* smoothing. That is, companies first smooth the asset gain or loss by using the expected return. Second, they do not amortize the net unrecognized gain or loss at the beginning of the year unless it is greater than the corridor. Finally, they spread the excess over the remaining service life of existing employees.[5]

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; expected return on plan assets is 10 percent.

Actual return on plan assets is $12,000.

Amortization of past service cost (PSC) is $27,200 ($81,600 ÷ 3).

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 20-11 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 20-5.

Entries (m), (n), (o), (q), (r), and (s) are similar to the corresponding entries in 2011 or 2012.

Entries (o) and (p) are related. We explained the recording of the actual return in entry (o) in both 2011 and 2012; it is recorded similarly in 2013. In both 2011 and 2012,

[5]The IASB recently issued an exposure draft to further modify its pension standard. The proposed revisions will eliminate corridor amortization and require expanded recognition of off-balance-sheet pension amounts. For more information on this project, see *http://www.iasb.org/Current+Projects/IASB+Projects/Post-employment+Benefits+(including+Pensions)/Post-employment+Benefits+(including+pensions).htm*.

Pension Worksheet—2013

	A	B	C	D	F	G	H	I
1		General Journal Entries			Memo Record			
2	Items	Annual Pension Expense	Cash	Pension Asset/ Liability	Defined Benefit Obligation	Plan Assets	Unrecognized Past Service Cost	Unrecognized Net Gain or Loss
3	Balance, Dec. 31, 2012			25,960 Cr.	214,460 Cr.	134,100 Dr.	54,400 Dr.	
4	(m) Service cost	13,000 Dr.			13,000 Cr.			
5	(n) Interest cost	21,446 Dr.			21,446 Cr.			
6	(o) Actual return	12,000 Cr.				12,000 Dr.		
7	(p) Unexpected loss	1,410 Cr.						1,410 Dr.
8	(q) Amortization of PSC	27,200 Dr.					27,200 Cr.	
9	(r) Contributions		24,000 Cr.			24,000 Dr.		
10	(s) Benefits				10,500 Dr.	10,500 Cr.		
11	(t) Liability increase				26,594 Cr.			26,594 Dr.
12								
13								
14	Journal entry for 2013	48,236 Dr.	24,000 Cr.	24,236 Cr.				
15	Balance, Dec. 31, 2013			50,196 Cr.	265,000 Cr.	159,600 Dr.	27,200 Dr.	28,004 Dr.

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ILLUSTRATION 20-11
Pension Worksheet—2013

Zarle's actual return on plan assets was equal to the expected return on plan assets. In 2013, the expected return of $13,410 (the expected rate of return of 10 percent times the beginning-of-the-year plan assets balance of $134,100) is higher than the actual return of $12,000. To smooth pension expense, Zarle defers the unexpected loss of $1,410 ($13,410 − $12,000) by debiting the Unrecognized Net Gain or Loss account and crediting Pension Expense. **As a result of this adjustment, the expected return on the plan assets is the amount actually used to compute pension expense.**

Entry (t) records the change in the defined benefit obligation resulting from a change in actuarial assumptions. As indicated, the actuary has now computed the ending balance to be $265,000. Given that the memo record balance at December 31 is $238,406 ($214,460 + $13,000 + $21,446 − $10,500), a difference of $26,594 ($265,000 − $238,406) exists. This $26,594 increase in the employer's liability is an unexpected loss. Zarle defers that amount by debiting it to the Unrecognized Net Gain or Loss account. The journal entry on December 31 to formally record pension expense for 2013 is as follows.

2013

Pension Expense	48,236	
Cash		24,000
Pension Asset/Liability		24,236

As the 2013 worksheet indicates, the $50,196 balance of the Pension Asset/Liability account at December 31, 2013, is equal to the net of the balances in the memo accounts. Illustration 20-12 shows this computation.

ILLUSTRATION 20-12
Pension Reconciliation Schedule—December 31, 2013

Defined benefit obligation (Credit)	$(265,000)
Plan assets at fair value (Debit)	159,600
Funded status	(105,400)
Unrecognized past service cost (Debit)	27,200
Unrecognized net loss (Debit)	28,004
Pension Asset/Liability (Credit)	$ (50,196)

Immediate Recognition of Actuarial Gains and Losses

The IASB indicates that the corridor approach results in the minimum amount recognized as an actuarial gain and loss. Companies may use any systematic method that is

faster than the corridor approach provided it is used for both gains and losses and is used consistently from period to period. The IASB also indicates that it favors the immediate recognition of actuarial gains and losses. **[6]**

If a company chooses the immediate recognition approach, the actuarial gain or loss can either adjust net income or other comprehensive income. To illustrate, assume that Wentworth Company has the following components of pension expense for 2011.

Service cost	€2,000
Interest on defined benefit obligation	210
Expected return on plan assets	(80)
Past service cost amortization	60
Actuarial loss recognized in full	100
Pension expense	€2,290

ILLUSTRATION 20-13
Components of Pension Expense (in thousands)

Wentworth's 2011 revenues are €100,000, and expenses for 2011 (excluding pension expense) are €70,000. If Wentworth reports the adjustment of actuarial gains and losses in net income, its income statement is as shown in Illustration 20-14.

Income Statement	
Revenues	€100,000
Expenses (excluding pension expense)	70,000
Pension expense	2,290
Net income	€ 27,710

ILLUSTRATION 20-14
Income Excluding Pension Expense

If Wentworth decides to report the adjustment of actuarial gains and losses in other comprehensive income, its statement of comprehensive income is as follows.

Statement of Comprehensive Income	
Revenues	€100,000
Expenses (excluding pension expense)	70,000
Pension expense (€2,290 − €100)	2,190
Net income	27,810
Other comprehensive income	
Actuarial loss on defined benefit plan	100
Total comprehensive income	€ 27,710

ILLUSTRATION 20-15
Comprehensive Income Reporting of Actuarial Gains and Losses

Curtailments and Settlements

If a company such as **Nestlé** (CHE) commits itself to substantially reduce the number of employees in a plan or to substantially reduce the benefits of an existing plan, it is often referred to as a **curtailment**. Curtailments often have a significant effect on the financial statements and often occur from an isolated event, such as the closing of a plant, discontinuance of an operation, or termination or suspension of a plan. Curtailments are often linked with a restructuring of operations.

A **settlement** occurs when a company enters into a transaction that eliminates all further obligations for part or all of the benefits provided under a defined benefit plan. For example, if **Siemens** (DEU) makes a lump-sum cash payment to participants in a defined benefit pension plan in exchange for their rights to receive specified benefits in the future, a settlement has occurred.

Companies recognize gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs. The gain or loss on a curtailment or settlement is comprised of the following: (1) any resulting change in the present value of the defined benefit obligation, (2) any resulting change in the fair value of the plan assets, and (3) any related actuarial gains and losses and past service cost that had not been previously been recognized.

Where a curtailment relates to only some of the employees covered by a plan, or where only part of an obligation is settled:

- The gain or loss includes a proportionate share of the previously unrecognized past service cost and actuarial gains and losses.
- The proportionate share is determined on the basis of the present value of the obligations before and after the curtailment or settlement. [7]

To illustrate, assume that Dejon Company discontinues an operating segment, and employees of the discontinued segment will earn no further benefits. Using current actuarial assumptions (including current market interest rates and other current market prices) immediately before the curtailment, Dejon has a defined benefit obligation (000 omitted) with a net present value of €1,000, plan assets with a fair value of €820, net cumulative unrecognized actuarial gains of €50, and €80 unrecognized past service costs (all unvested). The curtailment reduces the net present value of the obligation by €100 to €900. Of the previously unrecognized actuarial gains and past service costs amounts, 10 percent relates to the part of the obligation that was eliminated through the curtailment. The effect of the curtailment is summarized in Illustration 20-16.

ILLUSTRATION 20-16
Computation of Gain or Loss on Curtailment

	Before Curtailment	Gain (Loss)	After Curtailment
Defined benefit obligation (Credit)	€(1,000)	€100	€(900)
Fair value of plan assets (Debit)	820	—	820
Funded status	(180)	100	(80)
Unrecognized actuarial gains (Credit)	(50)	5*	(45)
Unrecognized past service costs (Debit)	100	(10)**	90
Pension asset/liability	**€ (130)**	**€ 95**	**€ (35)**

*10% × 50
**10% × 100

Thus, the net gain for Dejon is €95. This gain is comprised of the €100 reduction in the defined benefit obligation plus 10 percent of the unrecognized gains and losses (€5), less 10 percent of the past service costs (€10). Dejon makes the following entry to record the curtailment.

Pension Asset/Liability	95	
Gain on Curtailment		95

In the example above, Dejon has a curtailment. That is, it has reduced the number of employees in a plan or reduced the benefits of an existing plan. However, Dejon still has an obligation to employees, as indicated in the "After Curtailment" column in Illustration 20-16. If a cash payment is made to employees affected by the curtailment, such that it eliminates all further obligations for benefits provided under the plan, a gain or loss may be recorded. This is referred to as a settlement.

U.S. GAAP PERSPECTIVE

For defined benefit plans, U.S. GAAP recognizes a pension asset or liability as the funded status of the plan (i.e., defined benefit obligation minus the fair value of plan assets). IFRS recognizes the funded status, net of unrecognized past service cost and unrecognized net gain or loss. Other reporting and disclosure provisions are similar between U.S. GAAP and IFRS.

REPORTING PENSION PLANS IN FINANCIAL STATEMENTS

As you might suspect, a phenomenon as significant and complex as pensions involves extensive reporting and disclosure requirements. 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. If the pension asset/liability balance is a debit, it is reported as Pension Asset. If it has a credit balance, it is reported as Pension Liability. 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.

IFRS

AUTHORITATIVE LITERATURE

Authoritative Literature References

[1] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), par. 58; and IFRIC Interpretation 14, *IAS 19—The Limit on a Defined Benefit Asset, Minimum Funding Requirements and Their Interaction* (2007).

[2] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), par. 96.

[3] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), par. 99.

[4] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), par. 100.

[5] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), par. 73.

[6] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), paras. 93 and BC41.

[7] International Accounting Standard 19, *Employee Benefits* (London, U.K.: International Accounting Standards Committee Foundation, 2001), paras. 109–115.

QUESTIONS

1. What is meant by "past service cost"? When is past service cost recognized as pension expense?
2. What are "liability gains and losses," and how are they accounted for?
3. What is the meaning of "corridor amortization"?
4. Describe the immediate recognition approach for unrecognized actuarial gains and losses.
5. Bill Haley is learning about pension accounting. He is convinced that, regardless of the method used to recognize actuarial gains and losses, total comprehensive income will always be the same. Is Bill correct? Explain.
6. 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 £245,000. The amount of the vested benefits for the plan is £225,000. Joshua has unrecognized past service costs of £24,000 and an unrecognized actuarial 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?
7. What is a plan curtailment? What is a plan settlement?
8. Describe the accounting for pension plan curtailments and settlements.

BRIEF EXERCISES

BE20-1 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, 2010, and recorded negative unrecognized past service cost of €125,000. The average period to vesting for the benefits affected by this plan is 5 years. Compute unrecognized past service cost amortization for 2010. Discuss the impact of this amendment on Villa's pension expense in 2010 and 2011.

BE20-2 Tevez Company experienced an actuarial loss of €750 in its defined benefit plan in 2010. Tevez has elected to recognize these losses immediately. For 2010, Tevez's revenues are €125,000, and expenses (excluding pension expense of €14,000, which does not include the actuarial loss) are €85,000. Prepare Tevez's statement of comprehensive income for 2010, assuming Tevez recognizes the loss in (a) net income, and (b) other comprehensive income.

BE20-3 As a result of a discontinued operation, Wasson Company is curtailing some benefits provided in its pension plan. It has the following data related to the plan.

Defined benefit obligation (Credit)	€(1,500)
Fair value of plan assets (Debit)	1,350
Funded status	(150)
Unrecognized actuarial gains (Credit)	(30)
Unrecognized past service costs (PSC) (Debit)	80
Pension asset/liability	€ (100)

The curtailment results in a €180 reduction in the defined benefit obligation (there is no impact on the plan assets). The employees affected comprise 20% of all employees in the plan. Prepare the entry to record the curtailment for Wasson.

BE20-4 Using the information in BE20-3, prepare the journal entry for Wasson, assuming that instead of having unrecognized actuarial gains, Wasson has unrecognized losses before the curtailment of €50. Prepare the pension plan reconciliation after recording the curtailment.

EXERCISES

E20-1 (Basic Pension Worksheet) The following defined pension data of Doreen Corp. apply to the year 2010.

Defined benefit obligation, 1/1/10 (before amendment)	$560,000
Plan assets, 1/1/10	546,200
Pension asset/liability	13,800 Cr.
On January 1, 2010, Doreen Corp., through plan amendment, grants past service benefits having a present value of	100,000
Discount rate	9%
Service cost	58,000
Contributions (funding)	55,000
Actual (expected) return on plan assets	52,280
Benefits paid to retirees	40,000
Past service cost amortization for 2010	17,000

Instructions

For 2010, prepare a pension worksheet for Doreen Corp. that shows the journal entry for pension expense and the year-end balances in the related pension accounts.

E20-2 (Pension Worksheet with Reconciliation Schedule) Buhl Corp. sponsors a defined benefit pension plan for its employees. On January 1, 2010, the following balances relate to this plan.

Plan assets	$480,000
Defined benefit obligation	625,000
Pension asset/liability	45,000
Unrecognized past service cost	100,000

As a result of the operation of the plan during 2010, the following additional data are provided by the actuary.

Service cost for 2010	$90,000
Discount rate, 9%	
Actual return on plan assets in 2010	57,000
Amortization of past service cost	19,000
Expected return on plan assets	52,000
Unexpected loss from change in defined benefit obligation, due to change in actuarial predictions	76,000
Contributions in 2010	99,000
Benefits paid retirees in 2010	85,000

Instructions

(a) Using the data above, compute pension expense for Buhl Corp. for the year 2010 by preparing a pension worksheet that shows the journal entry for pension expense and the year-end balances in the related pension accounts.

(b) At December 31, 2010, prepare a schedule reconciling the funded status of the plan with the pension amount reported on the statement of financial position.

E20-3 (Pension Expense, Journal Entries, Statement Presentation) Nellie Altom 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, 2010.

	January 1, 2010	December 31, 2010
Defined benefit obligation	€2,000,000	€2,077,000
Fair value of plan assets	800,000	1,130,000
Actuarial (gains) losses (Unrecognized net (gain) or loss)	–0–	(200,000)

The service cost component of pension expense for employee services rendered in the current year amounted to €77,000 and the amortization of unrecognized past service cost was €115,000. The company's actual funding (contributions) of the plan in 2010 amounted to €250,000. The expected return on plan assets and the actual rate were both 10%; the interest/discount rate was 10%. No pension asset/liability existed on January 1, 2010. Assume no benefits paid in 2010.

Instructions

(a) Determine the amounts of the components of pension expense that should be recognized by the company in 2010.

(b) Prepare the journal entries to record pension expense and the employer's contribution to the pension plan in 2010.

(c) Indicate the pension-related amounts that would be reported on the income statement and the statement of financial position for Nellie Altom Company for the year 2010.

E20-4 (Computation of Actual Return, Gains and Losses, Corridor Test, Past Service Cost, Pension Expense, and Reconciliation) Linda Berstler Company sponsors a defined benefit pension plan. The corporation's actuary provides the following information about the plan.

	January 1, 2010	December 31, 2010
Vested benefit obligation	£1,500	£1,900
Defined benefit obligation	2,800	3,645
Plan assets (fair value)	1,700	2,620
Discount rate and expected rate of return		10%
Pension asset/liability	–0–	?
Unrecognized past service cost	1,100	?
Service cost for the year 2010		400
Contributions (funding in 2010)		800
Benefits paid in 2010		200

The average remaining service life per employee is 20 years. The average time to vesting past service costs is 10 years.

Instructions

(a) Compute the actual return on the plan assets in 2010.

(b) Compute the amount of the unrecognized net gain or loss as of December 31, 2010. (Assume the January 1, 2010, balance was zero.)

(c) Compute the amount of unrecognized net gain or loss amortization for 2010 (corridor approach).
(d) Compute the amount of past service cost amortization for 2010.
(e) Compute pension expense for 2010.
(f) Prepare a schedule reconciling the plan's funded status with the amounts reported in the December 31, 2010, statement of financial position.

E20-5 (Worksheet for E20-4) Using the information in E20-4 about Linda Berstler Company's defined benefit pension plan, prepare a 2010 pension worksheet with supplementary schedules of computations. Prepare the journal entries at December 31, 2010, to record pension expense. Also, prepare a schedule reconciling the plan's funded status with the pension amounts reported in the statement of financial position.

PROBLEMS

P20-1 (Computation of Pension Expense, Amortization of Unrecognized Net Gain or Loss [Corridor Approach], and Journal Entries for 3 Years) Dubel Toothpaste Company initiates a defined benefit pension plan for its 50 employees on January 1, 2010. The insurance company, which administers the pension plan, provided the following information for the years 2010, 2011, and 2012.

	For Year Ended December 31,		
	2010	2011	2012
Plan assets (fair value)	$50,000	$ 85,000	$170,000
Defined benefit obligation	55,000	200,000	324,000
Unrecognized net (gain) loss (for purposes of corridor calculation)	–0–	83,950	86,121
Employer's funding contribution (made at end of year)	50,000	60,000	95,000

There were no balances as of January 1, 2010, when the plan was initiated. The actual and expected return on plan assets was 10% over the 3-year period, but the rate used to discount the company's pension obligation was 13% in 2010, 11% in 2011, and 8% in 2012. The service cost component of net periodic pension expense amounted to the following: 2010, $55,000; 2011, $85,000; and 2012, $119,000. The average remaining service life per employee is 12 years. No benefits were paid in 2010, $30,000 of benefits were paid in 2011, and $18,500 of benefits were paid in 2012 (all benefits paid at end of year).

Instructions

(Round to the nearest dollar.)

(a) Calculate the amount of net periodic pension expense that the company would recognize in 2010, 2011, and 2012.
(b) Prepare the journal entries to record net periodic pension expense and employer's funding contribution for the years 2010, 2011, and 2012. Dubel uses corridor amortization for actuarial gains and losses.
(c) Repeat the requirements for part (b), assuming that Dubel immediately recognizes actuarial gains and losses in net income.

P20-2 (Computation of Unrecognized Past Service Cost Amortization, Pension Expense, Journal Entries, Net Gain or Loss, and Reconciliation Schedule) Widjaja Inc. has sponsored a non-contributory, defined benefit pension plan for its employees since 1990. Prior to 2010, cumulative net pension expense recognized equaled cumulative contributions to the plan. Other relevant information about the pension plan on January 1, 2010, is as follows.

1. The company has 200 employees. All these employees are expected to receive benefits under the plan. The average remaining service life per employee is 13 years. The average period to vesting past service costs is 10 years.
2. The defined benefit obligation amounted to €5,000,000 and the fair value of pension plan assets was €3,000,000. Unrecognized past service cost was €2,000,000.

On December 31, 2010, the defined benefit obligation was €4,750,000. The fair value of the pension plan assets amounted to €3,900,000 at the end of the year. A 10% discount rate and a 10% expected asset return rate were 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 2010 amounted to €200,000. The employer's contribution to the plan assets amounted to €575,000 in 2010. This problem assumes no payment of pension benefits.

Instructions

(Round all amounts to the nearest euro.)

(a) Prepare a schedule, based on the average remaining life per employee, showing the unrecognized past service cost that would be amortized as a component of pension expense for 2010, 2011, and 2012.

(b) Compute pension expense for the year 2011.

(c) Prepare the journal entries required to report the accounting for the company's pension plan for 2011.

(d) Compute the amount of the 2010 increase/decrease in unrecognized net gains or losses and the amount to be amortized in 2010 and 2011.

(e) Prepare a schedule reconciling the funded status of the plan with the pension amounts reported in the financial statements as of December 31, 2010.

USING YOUR JUDGMENT

Financial Reporting Problem

Marks and Spencer plc (M&S)

The financial statements of M&S can be accessed at the book's companion website, **www.wiley.com/college/kiesoifrs**.

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?

BRIDGE TO THE PROFESSION

IFRS

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?