



12

Employee Benefits

# Employee Benefits

# 12

## LEARNING OUTCOMES

After studying this chapter students should be able to:

- ▶ discuss the recognition and valuation issues concerned with pension schemes and the treatment of actuarial deficits and surpluses;
- ▶ discuss the recognition and valuation issues concerned with share-based payments.

## 12.1 Introduction

This chapter will cover the accounting treatment of employee benefits, including pensions and share-based payments. Section 12.2 covers the objective of IAS 19 *Employee Benefits* and introduces the definitions and terms that are specific to pension schemes. Section 12.3 deals with the accounting for defined benefit and defined contribution schemes, including the treatment of actuarial gains and losses. Section 12.4 reviews the amendment to IAS 19. Section 12.5 covers the requirements of IFRS 2 *Share-based payments*.

## 12.2 IAS 19 *Employee benefits*

The objective of IAS 19 is to prescribe accounting and disclosure in respect of employee benefits. An entity must recognise:

- a liability when an employee has provided service in exchange for employee benefits to be paid in the future.
- an expense when the entity consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.

Employee benefits include:

- (a) short-term benefits such as wages, salaries, holiday pay, bonuses, profit-sharing and benefits;
- (b) post-employment benefits such as pensions and post-employment life insurance and medical care;
- (c) other long-term benefits such as sabbatical leave and deferred compensation;
- (d) termination benefits.

The standard notes that accounting for short-term benefits is generally straightforward; the normal accruals principle applies, and so short-term prepayments and accruals may arise, but discounting and actuarial valuations are not required. The principal area of complexity arises in respect of accounting for post-employment benefits.

Post-employment benefit plans are classified as either defined contribution or defined benefit plans. The standard's definition of defined contribution plans is as follows:

Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Defined benefit plans are all plans not classified as defined contribution plans. Most of the rest of the part of the chapter on IAS 19 relates to accounting for defined benefit plans.

### 12.2.1 Key definitions

*Employee benefits* are all forms of consideration given by an entity in exchange for service rendered by employees.

*Post-employment benefits* are employee benefits which are payable after the completion of employment.

The *present value of a defined benefit obligation* is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

*Current service cost* is the increase in the present value of the defined benefit obligation resulting from employee service in the current period.

*Interest cost* is the increase during a period in the present value of a defined benefit obligation which arises because the benefits are one period closer to settlement.

*Plan assets* comprise assets held by a long-term employee benefit fund.

*Assets held by a long-term employee benefit fund* are assets that are held by a fund that is legally separate from the reporting entity, and exists solely to pay or fund employee benefits. Such assets are available only for payment or funding of employee benefits; they are not available for meeting the reporting entity's other obligations and they cannot be returned to the reporting entity.

The *return on plan assets* is interest, dividends and other revenue derived from the plan assets, together with realised and unrealised gains or losses on the plan assets, less any costs of administering the plan and less any tax payable by the plan.

*Actuarial gains and losses* comprise experience adjustments (the effect of differences between the previous actuarial assumptions and what has actually occurred; these may be gains or losses) and the effect of changes in actuarial assumptions.

*Past service cost* is the increase in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits or other long-term employee benefits. Past service cost may be either positive (where benefits are introduced or improved) or negative (where existing benefits are reduced).

## 12.3 Accounting for post-employment benefits

### 12.3.1 Defined contribution plans

When an employee has rendered service to an entity during an accounting period, the entity should recognise that contribution payable to a defined contribution plan in exchange for that service. The receipt of service is thus matched against the amount of contribution paid by the entity in respect of the service. This is the simplest scheme to deal with.

#### Example 12.A

C operates a defined contribution scheme for all eligible employees. Under the terms of the scheme, C pays 5% of gross salary into the scheme. The payroll cost for the month of October was \$450,000.

The pension cost of \$22,500 ( $\$450,000 \times 5\%$ ) will be recorded and paid over to the pension fund. It will normally be included in employee costs in the income statement.

Recorded as:

Dr	Employee costs – pensions	\$22,500
Cr	Bank/pension fund liability	\$22,500
	Being pension costs for October (bank or creditor depending on date it is paid over).	

### 12.3.2 Defined benefit plans

In a typical (funded) defined benefit scheme cash is paid into the scheme's fund by employees themselves, or on their behalf by employers, or both. The assets of the scheme are managed separately from the employer entity, and are invested to produce returns which enhance the value of the fund. The value of the fund is reduced when benefits are paid out. Defined benefit schemes carry the risk that the assets in the scheme will not be sufficient to pay out all the future benefits to employees that are committed under the rules of the scheme. In such cases meeting any shortfall depends upon the resources of the employer entity. As IAS 19 points out: 'the entity is, in substance, underwriting the actuarial and investment risks associated with the plan'.

Periodically, an actuarial valuation is carried out in order to estimate the amount of benefit that employees have earned in return for their service in the current and prior periods. The valuation involves actuarial assumptions about a range of variables such as mortality rates and future increases in salaries. Using such assumptions, the actuary estimates the value of the scheme liability which is then discounted to present value.

The discounted value of the scheme liabilities is compared to the value of the scheme assets, adjusted for any past service cost that may have arisen, and a total amount of actuarial gain or loss is calculated. The application of the IAS 19 rules mean that the actuarial gain or loss may or may not be recognised in the accounting period.

The next subsection of the chapter will examine the accounting in detail.

## Defined benefit plan

Accounting for defined benefit plans involves the following steps:

1. Use actuarial techniques to make a reliable estimate of the amount of benefit employees have earned in return for their service in the current period.
2. Discount that benefit to determine the present value of the defined benefit obligation and the current service cost.

### Example 12.B

Under the terms of a defined benefit plan, a lump-sum benefit is payable on termination of service equal to 1% of final salary for each year of service. An employee joins on 1.1.20X1 and is paid an annual salary of \$10,000. This is assumed to increase at 7% compound each year until the employee leaves. The applicable discount rate is 10%. This particular employee expects to leave on 31.12.20X5. What is the current service cost for 20X3, assuming that there are no changes in actuarial assumptions?

When the employee is due to leave on 31.12.20X5 the expected salary is  $\$10,000 \times (1.07)^4 = \$13,108$ . Each year's service earns an extra lump sum of 1% of final salary so the lump-sum entitlement increases by \$131 ( $1\% \times \$13,108$ ) for each year of service. The current service cost for 20X3 is found by discounting this entitlement by 2 years at the discount rate of 10%, to  $\$108 [\$131 \div (1.10)^2]$ .

3. The current service cost is charged as an expense in the income statement, together with an interest cost, which is the increase in the present value of liabilities recognised in previous years owing to the fact that they are 1 year closer to payment. The closing liability is then the opening liability plus the interest cost plus the current service cost plus or minus any actuarial differences (see later).

### Example 12.C

At the end of 20X2 the employee in the example we are considering would have built up an entitlement to receive \$262 ( $2 \times \$131$ ) on leaving employment. This would have been shown as a liability of \$196 [ $\$262 \div (1.10)^3$ ]. The interest charge for 20X3 would be \$20 ( $\$196 \times 0.10$ ). Therefore the closing liability would be  $\$196 + \$20 + \$108$  (the current service cost for 20X3 we worked out earlier) – a total of \$324. This is of course 3 years' entitlement ( $\$131 \times 3 = \$393$ ) discounted by 10% per annum to its present value at the end of 20X3.

4. Determine the fair value of any plan assets. These are assets held by a separate legal entity that are to be used only to settle the employee benefit obligations.
5. The expected rate of return on opening fund assets is recognised as a component of the income statement, effectively reducing the pension cost.
6. Determine the total amount of actuarial gains and losses. Actuarial gains and losses are caused by changes in the actuarial assumptions made regarding the scheme and experience surpluses or deficiencies (the effect of previous actuarial assumptions proving not to be totally accurate).

### Example 12.D

The following additional data relates to the benefit plan of which the employee we have been considering is a member for 20X3:

- Present value of the total obligation and fair value of the plan assets at the start of the year = \$1,000,000.
- Expected rate of return on plan assets at start of year = 12%.
- Current service cost = \$130,000.
- Benefits paid to plan members \$150,000.
- Contributions paid into plan \$90,000.
- Present value of total obligation at the end of the year = \$1,141,000.
- Fair value of plan assets at the end of the year = \$1,092,000.

Using the above information we can compute the actuarial gain or loss for the year. This is done in two parts:

#### Gain or loss on obligation

	\$'000
Present value of obligation at start of the year	1,000
Interest cost (10% × \$1 m 2 10% is the discount rate)	100
Current service cost	130
Benefits paid	(150)
Actuarial loss on obligation – balancing figure	<u>61</u>
Present value of obligation at end of the year	<u>1,141</u>

#### Gain or loss on assets

	\$'000
Fair value of plan assets at start of the year	1,000
Expected return on plan assets (12% × \$1m)	120
Contributions	90
Benefits paid	(150)
Actuarial gain on assets – balancing figure	<u>32</u>
Fair value of plan assets at end of the year	<u>1,092</u>

7. The actuarial gains and losses depend on the actuarial assumptions and the experience surpluses or deficiencies. They are not recognised immediately in the income statement. The only time such gains or losses are recognised in the income statement is if, at the beginning of the period, the net cumulative unrecognised gains, actuarial gains and losses exceeded 10 per cent of the greater of:

- the present value of the obligation before deducting plan assets;
- the fair value of any plan assets.

The limit is referred to in the standard as 'the corridor'.

In those circumstances any excess, divided by the average remaining working lives of the employees participating in the plan, is recognised in the income statement.

Note, however, that a recent amendment to IAS 19 has introduced a further option for accounting for actuarial gains and losses (see Section 15.1.3 later in this chapter).

### Example 12.E

In the scenario we have been considering, suppose that the average remaining service lives of the employees in the plan is 10 years. At the start of 20X3 the net cumulative unrecognised actuarial gains were \$140,000. This means that the amount of actuarial gains and losses recognised in the income statement for 20X3 will be:

- Limits of corridor is \$100,000 (10% × \$1m – both liability and asset are this figure at the start of the year).
- Excess is \$40,000 (\$140,000 – \$100,000).
- The amount recognised in the income statement in 20X3 is \$4,000  $\frac{\$40,000}{10}$ .

- And the cumulative unrecognised actuarial gains at the end of 20X3 are \$107,000 [ $\$140,000 - \$4,000 + \$32,000$  (gain on assets) – \$61,000 (loss on obligation)].
- The corridor at the end of 20X3 is \$114,100 [ $10\% \times \$1,141,000$  (the closing obligation)]. Therefore no actuarial gains and losses will be recognised in the income statement in 20X4.

8. The statement of financial position shows the net of the following amounts:

- the present value of the defined benefit obligation;
- *plus* any unrecognised actuarial gains minus any unrecognised actuarial losses;
- *less* the fair value of the plan assets.

### Example 12.F

In the scenario we have been considering, the net statement of financial position figure for the plan in the financial statements of the contributing entity will be:

	\$'000
Present value of pension obligation	1,141
Unrecognised actuarial gains	107
Fair value of plan assets	(1,092)
Net plan liability	<u>156</u>

### An evaluation of the IAS 19 requirements for defined benefit plans

The use of actuarial techniques to compute the three ongoing components of the charge to the income statement is a reasonable reflection of the economic exposure facing the contributing companies. However, the treatment of actuarial gains and losses lacks conceptual validity in that it required unrecognised gains to be recognised as residuals in the statement of financial position. Some countries (e.g., the UK) have moved in the direction of immediate recognition of actuarial differences. The IASB intends to undertake a major project on accounting for post-retirement benefits, and it is likely that international accounting practice in this area will be substantially revised. In the meantime, the IASB issued an amendment to IAS 19 in December 2004. An important aspect of this amendment is examined below.

## 12.4 Amendment to IAS 19 – December 2004

The amendment to IAS 19 published in December 2004 is entitled 'Actuarial gains and losses, group plans and disclosures'. This section of the Learning System will focus upon the amendment to the permitted treatments of actuarial gains and losses. This basis for the conclusions on the amendment observes that actuarial gains and losses are economic events of the period in which they occur. Consequently, the original IAS 19 recommended treatment of such gains and losses (set out in the previous section) is inappropriate in permitting recognition to be deferred or to be spread over several accounting periods. The amendment therefore permits entities to opt for an accounting policy that recognises these gains and losses immediately. Rather than recognising them in the income statement, the amended standard requires that they should be recognised in a statement of changes in equity.

Now with the introduction of the statement of comprehensive income, the gains or losses would be reported within other comprehensive income in the year.

The purpose of recognising and reporting such gains and losses outside the income statement is to protect reported profits from the potentially volatile effects of some very significant items.

In its basis for conclusions, the IASB deals with some of the principal arguments against this amendment. It takes the view that, pending a thorough revision of the standard, which will obviously take some time, it is better to offer an option that allows for more transparent information than that provided by deferred recognition. Also, a drawback of the deferred recognition approach is that it requires recognition of a debit item (where actuarial losses exist) or a credit item (in respect of gains) that do not fulfil the definitions of an asset or a liability.

Some of the principal criticisms of the IASB's approach in respect of this amendment are as follows:

1. It is inherently undesirable to extend the range of options available in an accounting standard. Much of the IASB's improvement project has had the opposite objective of restricting the range of options available. The availability of options impedes comparability.
2. The amendment requires recognition in a separate 'statement of recognised income and expense', requiring an amendment to IAS 1. This may be seen as prejudging issues that should, ideally, be resolved as part of the project on comprehensive income reporting.
3. Conceptually, if such gains and losses are to be recognised, recognition should be within the income statement.
4. This approach diverges from US GAAP, and so runs counter to the prevailing trend of convergence of US and international practice.

However, it should be noted that this potentially very significant amendment to accounting practice is, currently, optional. Entities can, and probably in many cases will, continue with their existing accounting policy. The entities most likely to utilise the amendment are those UK listed entities that have already altered their accounting for post-retirement benefits in accordance with the UK standard FRS 17 (which requires immediate recognition of actuarial gains and losses).

## 12.5 IFRS 2 *Share-based payment*

Share option schemes are frequently used as a means of rewarding employees. They may also be used as a means of buying-in goods or services from parties outside the entity. Such schemes can become very complicated, especially if the options are dependent in some way on entity or employee performance.

In some cases, share schemes of various types are used as a means of replacing substantial parts of remuneration in the form of regular salary, or indeed as a complete substitute for remuneration. In the case of risky business start-ups (particularly in high-tech industries) employees may agree to work for little or nothing, being rewarded instead either by shares in the entity at start-up (at which point the shares are likely to be worth little or nothing) or by options to purchase shares at a minimal price at some future date. Employees in such cases voluntarily take on a risk, in the hope of material reward in future. The advantage to the start-up entity is obvious: it obtains the advantages of highly skilled labour without

having to pay for it. If the business fails, the value of the stock or options will never materialise and the employees bear the opportunity cost of their services which, in the event, have been supplied for no return. If the business prospers the shares gain in value, the options are exercised, and, in some cases, the employees gain huge rewards for the risk they have run.

A simple example, set in the context of an established business, will illustrate the issue.

### Example 12.G

Entity A, a listed entity, rewards its senior employees from time to time by granting share options. On 1 January 20X3 it grants each member of a group of senior employees an option on 10,000 shares, at an exercise price of the market value of the shares on 1 January 20X3 (\$3.50), the option to be exercised no earlier than 1 January 20X6.

Three years later, on 1 January 20X6 the market value of one share is \$4.50. Senior employee B decides to exercise the option. He pays A \$35,000 (10,000 shares at \$3.50) and receives 10,000 shares in exchange. Employee B has thus gained a benefit with a current value at 1 January 20X6 of \$10,000 (current value of shares  $\$4.50 \times 10,000 = \$45,000$  less the \$35,000 just paid). Whether or not B chooses to realise his gain immediately by selling the shares at \$4.50 each is entirely up to him; henceforth, for as long as he owns the shares, he bears all of the risks and rewards of ownership, just like any other equity shareholder in a listed company.

Accounting for this transaction appears straightforward: \$10,000 to be credited to share capital, being the nominal value of shares issued; \$25,000 to share premium account; a debit of \$35,000 to cash for the amount received from the employee. However, beyond these simple entries there is the question of the \$10,000 benefit to the employee, which can be viewed as representing delayed remuneration for his services over the 3-year period. Applying the accruals concept, remuneration should be matched against the revenue which the services of the employee have helped to create. So, in this case, should there not be an additional debit of \$10,000 to the income statement over the 3 years in order to reflect the cost of these services? The arguments for and against its inclusion are as follows.

*For*

- The \$10,000 represents remuneration and so should be properly reflected as an expense; the means by which the remuneration is paid is irrelevant.
- If the entity does not fully reflect remuneration for services to employees the performance statement will be incomplete, and users will neither be able to properly assess the stewardship of management nor to make fully informed economic decisions.
- If costs of employment are fully reflected in some entities (because they are paid via regular salaries) and not in others (because rewards are wholly or partly in shares or share options) then the performance statements between companies will not be comparable. (*Remember: comparability is one of the four key qualitative characteristics of financial statements identified by the IASC in its Framework.*)

*Against*

- The \$10,000 does not represent an outflow of economic benefits from the entity. The gain arises because of the entity's share price performance, and is receivable by the employee independently of any action by the entity.
- The \$10,000 does not represent an expense within the terms employed by the conceptual framework. Losses (which include expenses) 'are decreases in ownership interest not resulting from distributions to owners'. The \$10,000 is not a decrease in ownership interest.
- If \$10,000 is debited to the entity's income statement, what should happen to the related credit? It is doubtful whether it fulfils the characteristics of either a liability or ownership interest.

## 12.6 Accounting for share-based payments

### 12.6.1 Types of share-based payments

The IASB intends that the IFRS should be applied to all share-based payment transactions, and it identifies three principal types:

1. Equity-settled share-based payment transactions. This category would include the transaction in Example 12.G.
2. Cash-settled share-based payment transactions. This is where the provider of services or goods (i.e., in most cases the employee) is rewarded in cash, but the cash value is based upon the price of the entity's shares or other equity instruments.
3. Transactions where one of the parties involved can choose whether the provider of services or goods is rewarded in cash (value based on equity prices) or in shares.

The underlying assumption of the IFRS is that the issue of share options and grants of shares to employees and others creates a financial instrument which must be accounted for.

### 12.6.2 Recognition of share-based payments

Where payment for goods and services is in the form of shares or share options the transaction should be recognised in the financial statements. There should be a charge to the income statement when the goods or services are consumed. Where the payment is equity-settled (type 1 above) the corresponding credit should be to equity. Where the payment is cash-settled (type 2 above) the corresponding credit should be to liabilities.

### 12.6.3 Measurement

The transaction should be measured at the fair value of the shares or options issued. Measurement can be *direct*, that is, at the fair value of the goods or services received, or *indirect*, that is, by reference to the fair value of the equity instruments granted. In this latter case, fair value should be measured at the date of grant.

#### Equity-settled transactions

For equity-settled transactions it is likely that the fair value of the shares will be more easily measured and so the share price of the shares is used to measure the transaction. The fair value used should be the **price at the grant date**.

If the equity instruments **vest immediately** (employees are entitled to the shares immediately and without condition) then it is presumed that the entity has already received the benefit of the services and the full amount is recognised on the grant date.

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#### Example 12.H

GH granted 100 share options to all employees who had been with the entity for the last 12 months. The options had a value of \$2.50 at the grant date. 200 employees were eligible.

The share options have been granted in respect of prior services provided by employees. No further conditions must be met and so the full amount will be recorded as an employee cost. The fair value of the service provided cannot be reliably measured, however the fair value of the options granted represents the equivalent value. It is an equity settled transaction so the credit will be to equity (other reserves is probably most appropriate).

Recorded as:

Dr	Staff costs (100 × \$2.50 × 200)	\$50,000
Cr	Other reserves	\$50,000
	Being the recording of the equity-settled share-based transaction	

If the equity instruments do not vest immediately the company should assume the benefits received will accrue over the vesting period.

### Example 12.1

B grants share options to its 1,000 employees in the year to December 20X6. Each employee is entitled to 300 options if they stay employed with B for the next 3 years. At the grant date the options have an estimated value of \$2.50.

At the end of 20X6 60 staff had left and another 80 were expected to leave over the next two years.

At the end of 20X7 50 staff had left in the year and another 40 were expected to leave in 20X8.

20 staff left in 20X8.

Let us look at how the associated staff costs would be reflected in the financial statements over the vesting period of 3 years. No estimate is given regarding the fair value of the services provided so we assume the equivalent cost can be based on the fair value of the equity transferred (based on the value at the grant date).

**20X6** – estimated eligible employees = 860 (1,000 – 60 – 80)

Total equivalent cost of issuing options = (\$2.50 × 860 employees × 300 options) = \$645,000

Allocated over the vesting period of 3 years gives a charge of \$215,000 (\$645,000/3)

Recorded as:

Dr	Staff costs	\$215,000
Cr	Other reserves	\$215,000
	Being the recording of the equity based transaction for 20X6.	

**20X7** – estimated eligible employees = 850 (1,000 – 60 – 50 – 40)

Total equivalent cost of issuing options = (\$2.50 × 850 employees × 300 options) = \$637,500.

We want to have recognised two-thirds of this by the end of 20X7 = 425,000

Less the amount recognised in 20X6 = \$210,000 (\$425,000 – \$215,000)

Recorded as:

Dr	Staff costs	\$210,000
Cr	Other reserves	\$210,000
	Being the recording of the equity based transaction for 20X7.	

The balance on other reserves is now \$425,000.

**20X8** – estimated eligible employees = 870 (1,000 – 60 – 50 – 20)

Total equivalent cost of issuing options = (\$2.50 × 870 employees × 300 options) = \$652,500.

Less the amount recognised over the previous two years = \$227,500 (\$652,500 – \$425,000)

Recorded as:

Dr	Staff costs	\$227,500
Cr	Other reserves	\$227,500
	Being the recording of the equity based transaction for 20X8.	

The balance on other reserves is now \$652,500.

### Cash-settled transactions

Cash-settled equity-based transactions are those where the amount of the goods or services is based on the value of the entity's shares, but the amount is to be paid in cash. The debit is to income statement if for goods/services and the credit is to cash is settled immediately or to liabilities if it is settled at a future date.

As the liability varies with the value of the company's shares it should be remeasured at each statement of financial position date until the date of settlement, with any change going to the income statement.

### Example 12.J

100 eligible staff members are entitled to receive payment equivalent to 60% of the increase in value of 1,000 of the entity's shares. During the year to 31 December 20X8 the share price increased from 250 cents to 340 cents. Payment is made on 31 January 20X9.

The amount payable is \$54,000 ( $100 \times 1,000 \text{ shares} \times 60\% \times 0.90$ ) will appear within staff costs and a liability will be shown for the amount due and not yet settled, Recorded as:

Dr	Staff costs	\$54,000
Cr	Liability	\$54,000

Being the cash-settled transaction.

If the rights to a cash-settled amount vest over a period of time then the cost will be allocated over the vesting period, in a similar way to equity-based transactions. The liability however will be remeasured based on the fair value at the reporting date (as opposed to equity-settled transactions which use the fair value at the grant date and do not remeasure).

### Example 12.K

G grants 100 share appreciation rights (SARs) to its 500 employees during 20X7 on the condition that the employees stay with the entity for the next two years. The SARs must be exercised at the start of 20X9.

During 20X7 15 staff leave and another 20 are expected to leave in 20X8.

During 20X8 25 staff leave.

The fair value of the SARs is \$10 at 31 December 20X7 and \$13 at 31 December 20X8.

The employee cost will be charged over the vesting period of two years. However as this is a cash-settled transaction the liability will be credited and it will be remeasured based on revised fair values until the date of settlement.

**20X7** – estimated eligible employees = 465 ( $500 - 15 - 20$ )

Total equivalent cost of issuing options = ( $\$10 \times 465 \text{ employees} \times 100 \text{ SARs}$ ) = \$465,000.

Allocated over the vesting period of 2 years gives a charge of \$232,500 ( $\$465,000/2$ )

Recorded as:

Dr	Staff costs	\$232,500
Cr	Liability	\$232,500

Being the recording of the cash-settled transaction for 20X7.

**20X8** – estimated eligible employees = 460 ( $500 - 15 - 25$ )

Total equivalent cost of issuing options = ( $\$13 \times 460 \text{ employees} \times 100 \text{ SARs}$ ) = \$598,000.

Less the amount recognised in 20X7 of \$365,500 ( $\$598,000 - \$232,500$ )

Recorded as:

Dr	Staff costs	\$365,500
Cr	Liability	\$365,500

Being the recording of the cash-settled transaction for 20X8.

## 12.7 Summary

This chapter looked at the recognition and valuation principles of corporate pension schemes. The accounting treatment adopted for defined contribution schemes and defined benefit schemes, in accordance with IAS 19 *Employee benefits*, was covered, including the calculation and treatment of actuarial gains and losses. Share-based payments were also covered and the principles laid out in IFRS 2 *Share-based payment* were applied. The treatment of equity-settled and cash-settled transactions were covered.

# Revision Questions

# 12

## Question 1

You are the financial controller of C, a entity which has recently established a pension scheme for its employees. It chose a defined benefit scheme rather than a defined contribution scheme.

C makes payments into the pension scheme on a monthly basis.

C prepare financial statements to 31 December each year.

On 31 December 20X4 the market value of the scheme's assets was \$20 million and the present value of the scheme's liability \$22 million. Actuarial losses not yet recognised in the income statement amounted to \$1.5 million. In 20X5 the following data is relevant:

- current service cost: \$2 million,
- unwinding of discount: \$1.8 million,
- expected return on pension plan assets: \$2.4 million,
- contributions for the year: \$1.7 million.

On 31 December 20X5 the market value of the scheme's assets was \$21 million and the present value of the scheme's liability \$22.5 million.

C's accounting policy is to defer actuarial gains and losses to future periods so far as is permissible under the requirements of IAS 19.

### Requirement

Determine the total charge in the income statement for pensions (excluding amounts deducted from employees' gross salaries) and the amounts shown in the statement of financial position in respect of pensions.

Ignore deferred taxation.

**(10 marks)**

## Question 2

CBA is a listed entity that runs a defined benefit pension scheme on behalf of its employees. In the financial year ended 30 September 20X6 the scheme suffered an actuarial loss of \$7.2 million. The entity's directors are aware that the relevant accounting standard, IAS 19 *Employee benefits*, was amended recently. They have asked you, the financial controller, to write a short briefing paper, setting out an outline of the options for accounting for the actuarial loss in accordance with the amended version of the standard.

## Requirement

Prepare the briefing paper explaining the options and identifying, as far as possible from the information given, the potential impact on the financial statements of CBA of the two alternative accounting treatments.

**(10 marks)**

### ? Question 3

On 1 April 20X7, the present value of AB's pension obligation is \$1,634,000. The fair value of the pension plan assets is \$1,337,000. Unrecognised actuarial losses are \$224,000 as at 31 March 20X7. During the year to 31 March 20X8 the current cost is \$450,000 and the contributions made totalled \$520,000. The expected rate of return on assets was 10% and the interest cost was based on a rate of interest of 12%. The estimated remaining service lives of employees is 10 years. Round figures to the nearest \$000.

- (a) Calculate the income statement charge in respect of pensions for AB for the year ended 31 March 20X8, assuming that AB adopts the corridor approach under IAS 19.
- (b) Briefly outline the alternative treatment permitted by IAS 19 in respect of actuarial gains and losses and show the extracts from the statement of comprehensive income of AB for the year ended 31 March 20X8, assuming the actuarial loss on pension assets in the year was \$85,000 and the actuarial gain on pension obligations was \$55,000.

**(6 marks)**

**(4 marks)**

**(Total marks = 10)**

### ? Question 4

The following information relates to two share-based transactions that LM entered into in 2006.

- (i) LM granted share options to its 200 employees on 1 January 20X6. Each employee will receive 500 share options if they continue to work for LM for the next three years. The fair value of the options at the grant date was \$2.00 each.
- (ii) LM operates an incentive scheme for its employees which it set up during 2006. Under the terms of the scheme the workforce will be offered 80% of the share price increase on 10,000 of the entity's shares. Payment will be made on 31 March 2009. Again the scheme is only open to those who remain employed with LM for the three year period. The fair value of the SARs at the end of each of the three years is:

20X6 – \$1.60

20X7 – \$1.80

20X8 – \$2.10

During 20X6 20 employees left and another 45 were expected to leave over the next two years.

During 20X7 15 employees left and another 20 were expected to leave in 20X8.

During 20X8 10 employees left.

## Requirement

Briefly describe the accounting treatment to be adopted for these transactions, in accordance with IFRS 2 *Share-based payment* and calculate the amount to be recorded in the income statement for staff costs in respect of each of the three years.

**(10 marks)**

# Solutions to Revision Questions

# 12

## Solution 1

The charge to the income statement for 20X5 will be:

	\$'000	\$'000
Ongoing service cost		2,000
Unwinding of the discount	1,800	
Expected return on pension assets	<u>(2,400)</u>	
		<u>(600)</u>
Net charge to statement		<u>1,400</u>

The 'corridor' for recognition of actuarial losses from prior years is the greater of:

- 10% of the opening market value of the scheme's assets:  $\$20\text{m} \times 10\% = \$2\text{m}$ .
- 10% of the opening present value of the scheme's liabilities:  $\$22\text{m} \times 10\% = \$2.2\text{m}$ .

It is clear that the unrecognised actuarial losses are less than \$2.2 million, so no recognition is appropriate for the current year.

The statement of financial position figures for the end of 20X5 will be:

	\$'000	\$'000
Market value of plan assets	21,000	
Present value of plan liability	<u>(22,000)</u>	
		(1,000)
Actuarial differences not yet taken to the income statement (see below)		<u>300</u>
So net liability		<u>(700)</u>

**Working:** *Actuarial differences*

	\$'000
Net difference brought forward (\$20m–\$22m)	(2,000)
Net charge to income statement for the year (see above)	(1,400)
Contributions for the year	1,700
Actuarial difference for the year – to balance	<u>200</u>
Net difference carried forward (\$21m–\$22.5m)	<u>(1,500)</u>

This means that the end unrecognised actuarial losses at the end of the year are \$300,000 ( $\$500,000 - \$200,000$ ).



## Solution 2

The amended version of IAS 19 permits two possible approaches in accounting for actuarial gains and losses:

1. The first option is the accounting treatment that was required by the original IAS 19. Actuarial gains and losses are not recognised immediately in the income statement except where they exceed certain parameters. Where the parameters in the standard are met, the gain or loss is recognised over the average remaining service lives of the employees. This may be a fairly lengthy period (for example, 10 or 15 years would not be unusual), so, even if the actuarial loss of \$7.2 million were to exceed the parameters, the impact on the financial statements is likely to be very small.

Where this option requires part of the loss to be recognised, it is recognised in the income statement, and so has a direct effect upon reported profit.

2. The standard permits entities to adopt any systematic method that results in faster recognition of actuarial gains and loss than stipulated in the first approach, provided that the same basis is applied to both gains and losses, and that the basis is applied consistently. Thus, entities are able to opt for a policy of recognising the whole of any actuarial gains or losses in the accounting period in which they occur. In CBA's case this would mean recognising the full amount of the \$7.2 million loss in the financial year ended 30 September 20X6. In such cases (where actuarial gains and losses are recognised in full as they are incurred), the standard requires that such gains and losses should be recognised in a 'Other Comprehensive Income', within the statement of comprehensive income.



## Solution 3

(a) income statement expense for pensions is calculated as follows:

Pension costs	\$000
Current service cost	<u>450</u>
Expected return (10% × \$1,337,000)	<u>(134)</u>
Interest cost (12% × \$1,234,000)	<u>148</u>
Actuarial losses recognised in the period (W1)	<u>9</u>
Income statement expense	<u>473</u>

### Working 1

Actuarial losses to be recognised:

Corridor – 10% of the higher or opening plan assets and liabilities = opening liabilities,  $10\% \times \$1,337,000 = 133\text{K}$ . Unrecognised actuarial losses brought forward are \$224K. The difference of \$90,000 will be spread over the remaining service lives of 10 years giving a charge of \$9,000 per annum.

- (b) IAS 19 permits the actuarial gains/losses to be recognised faster than is achieved using the corridor approach, however to minimise the effect on reported profits the entire gains and losses are recognised in equity and shown in other comprehensive income.

Extracts from statement of comprehensive income for the year end 31 March 20X8.

**Income statement**

Staff costs	<u>\$000</u>
Pension cost (as per (a) but without the actuarial loss)	(464)

**Other comprehensive income**

Actuarial gain on pension obligations	55
Actuarial loss on pension assets	(85)

**? Solution 4**

Transaction (i)

This is an equity-settled share-based payment and under IFRS 2 the fair value of the shares will be used to estimate the fair value of the services provided by employees. The total fair value will be allocated over the vesting period of three years and will be based on the fair value at the grant date and will not be remeasured for subsequent changes in the value of the options. The income statement will be charged and equity will be credited in each of the three years of the vesting period.

$$20X6 - 500 \text{ options} \times \$2 \text{ per share} \times (200 - 20 - 45) = \$135,000$$

The charge for 20X6 is then  $\$135,000/3 = \$45,000$

$$20X7 - 500 \text{ options} \times \$2 \text{ per share} \times (200 - 20 - 15 - 20) = \$145,000$$

Two-thirds of \$145,000 should be recognised to date = \$96,667

Less the amount already recognised in 20X6 of \$45,000, results in a charge in 20X7 of \$51,667.

$$20X8 - 500 \text{ options} \times \$2 \text{ per share} \times (200 - 20 - 15 - 10) = \$155,000$$

Less cumulative total recognised to date of \$96,667, results in a charge of \$58,333 in 20X8.

Transaction (ii)

This is a cash-settled equity-based transaction. The cost to the income statement will be calculated in a similar way but will take account of the change in the fair value of the SARs. The income statement will be charged with the equivalent expense but as this is cash settled, the credit will be to liability in the statement of financial position.

20X6 –  $80\% \times 10,000 \times \$1.60 \times (200 - 20 - 45) = \$1,728,000$ . Allocated over vesting period of three years:

The charge for 20X6 is then \$576,000.

$$20X7 - 80\% \times 10,000 \times \$1.80 \times (200 - 20 - 15 - 20) = \$2,088,000$$

Two-thirds of \$2,088,000 should be recognised to date = \$1,392,000

Less the amount already recognized in 20X6 of \$576,000, results in a charge in 20X7 of \$816,000.

$$20X8 - 80\% \times 10,000 \times \$2.10 \times (200 - 20 - 15 - 10) = \$2,604,000$$

Less cumulative total recognised to date of \$1,392,000, results in a charge of \$1,212,000 in 20X8.