

## CHAPTER 13

# Employee benefits

### 13.1 Introduction

In this chapter we consider the application of IAS 19 *Employee Benefits*.<sup>1</sup> IAS 19 is concerned with the determination of the cost of retirement benefits in the financial statements of **employers** having retirement benefit plans (sometimes referred to as ‘pension schemes’, ‘superannuation schemes’ or ‘retirement benefit schemes’). The requirements of IFRS 2 *Share-Based Payment* will also be considered here. Even though IFRS 2 covers share-based payments for almost any good or service a company can receive, in practice it is employee service that is most commonly rewarded with share-based payments. We also consider the disclosure requirements of IAS 26 *Accounting and Reporting by Retirement Benefit Plans*.<sup>2</sup>

#### Objectives

By the end of this chapter, you should be able to:

- critically comment on the approaches to pension accounting that have been used under International Accounting Standards;
- understand the nature of different types of pension plan and account for the different types of pension plan that companies may have;
- explain the accounting treatment for other long-term and short-term employee benefit costs;
- understand and account for share-based payments that are made by companies to their employees;
- outline the required approach of pension schemes to presenting their financial position and performance.

### 13.2 Greater employee interest in pensions

The percentages of pensioners and public pension expenditure are increasing.

	% of population over 60		Public pensions as % of GDP
	2000	2040	2040
	%	% (projected)	% (projected)
Germany	24	33	18
Italy	24	37	21
Japan	23	34	15
UK	21	30	5
US	17	29	7

This has led to gloomy projections that countries could even be bankrupted by the increasing demand for state pensions. In an attempt to avert what governments see as a national disaster, there have been increasing efforts to encourage private funding of pensions.

As people become more and more aware of the possible failure of governments to provide adequate basic state pensions, they recognise the advisability of making their own provision for their old age. This has raised their expectation that their employers should offer a pension scheme and other post-retirement benefits. These have increased, particularly in Ireland, the UK and the USA, and what used to be a ‘fringe benefit’ for only certain categories of staff has been broadened across the workforce. This has been encouraged by various governments with favourable tax treatment of both employers’ and employees’ contributions to pension schemes.

### 13.3 Financial reporting implications

The provision of pensions for employees as part of an overall remuneration package has led to the related costs being a material part of the accounts. The very nature of such arrangements means that the commitment is a long-term one that may well involve estimates. The way the related costs are allocated between accounting periods and are reported in the financial statements needs careful consideration to ensure that a fair view of the position is shown.

In recent years there has been a shift of view on the way that pension costs should be accounted for. The older view was that pension costs (as recommended by IAS 19 prior to its revision in 1998) should be matched against the period of the employee’s service so as to create an even charge for pensions in the statement of comprehensive income, although the statement of financial position amount could have been misleading. The more recent approach is to make the statement of financial position more sensible, but perhaps accept greater variation in the pension cost in the statement of comprehensive income. The new view is the one endorsed by IAS 19 (revised) and is the one now in use by companies preparing accounts to international accounting standards.

Before examining the detail of how IAS 19 (revised) requires pensions and other long-term benefits to be accounted for, we need to consider the types of pension scheme that are commonly used.

### 13.4 Types of scheme

#### 13.4.1 *Ex gratia* arrangements

These are not schemes at all but are circumstances where an employer agrees to grant a pension to be paid for out of the resources of the firm. Consequently these are arrangements where pensions have not been funded but decisions are made on an *ad hoc* or case-by-case basis, sometimes arising out of custom or practice. No contractual obligation to grant or pay a pension exists, although a constructive obligation may exist which would need to be provided for in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.

#### 13.4.2 Defined contribution schemes

These are schemes in which the employer undertakes to make certain contributions each year, usually a stated percentage of salary. These contributions are usually supplemented by contributions from the employee. The money is then invested and, on retirement, the employee gains the pension benefits that can be purchased from the resulting funds.

Such schemes have uncertain future benefits but fixed, predetermined costs. Schemes of this sort were very common among smaller employers but fell out of fashion for a time. In recent years, due to the fixed cost to the company and the resulting low risk to the employer for providing a pension, these schemes have become increasingly popular. They are also popular with employees who regularly change employers, since the funds accrued within the schemes are relatively easy to transfer.

The contributions may be paid into a wide variety of plans, e.g. government plans to ensure state pensions are supplemented (these may be optional or compulsory), or schemes operated by insurance companies.

The following is an extract from the 2007 Annual Report of Nokia:

#### **Pensions**

The Group's contributions to defined contribution plans and to multi-employer and insured plans are charged to the profit and loss account in the period to which the contributions relate.

### **13.4.3 Defined benefit schemes**

Under these schemes the employees will, on retirement, receive a pension based on the length of service and salary, usually final salary or an average of the last few (usually three) years' salary.

These schemes form the majority of company pension schemes. They are, however, becoming less popular when new schemes are formed because the cost to employers is uncertain and there are greater regulatory requirements being introduced.

Whilst the benefits to the employee are not certain, they are more predictable than under a defined contribution scheme. The cost to the employer, however, is uncertain as the employer will need to vary the contributions to the scheme to ensure it is adequately funded to meet the pension liabilities when employees eventually retire.

The following is an extract from the accounting policies in the 2007 Annual Report of the Nestlé Group:

#### **Employee benefits**

The liabilities of the Group arising from defined benefit obligations, and the related current service cost, are determined using the projected unit credit method. Valuations are carried out annually for the largest plans and on a regular basis for other plans. Actuarial advice is provided both by external consultants and by actuaries employed by the Group. The actuarial assumptions used to calculate the benefit obligations vary according to the economic conditions of the country in which the plan is located.

Such plans are either externally funded, with the assets of the schemes held separately from those of the Group in independently administered funds, or unfunded with the related liabilities carried in the statement of financial position.

For the funded defined benefit plans, the deficit or excess of the fair value of plan assets over the present value of the defined benefit obligation is recognised as a liability or an asset in the statement of financial position, taking into account any unrecognised past service cost. However, an excess of assets is recognised only to the extent that it represents a future economic benefit which is actually available to the Group, for example in the form of refunds from the plan or reductions in future contributions to the plan. When such excess is not available or does not represent a future economic benefit, it is not recognised but is disclosed in the notes.

Actuarial gains and losses arise mainly from changes in actuarial assumptions and differences between actuarial assumptions and what has actually occurred. They are recognised in the period in which they occur outside the statement of comprehensive income directly in equity under the statement of recognised income and expense. The Group performs full pensions and retirement benefits reporting once a year, in December, at which point actuarial gains and losses for the period are determined.

For defined benefit plans the actuarial cost charged to the statement of comprehensive income consists of current service cost, interest cost, expected return on plan assets and past service cost. Recycling to the statement of comprehensive income of accumulated actuarial gains and losses recognised against equity is not permitted by IAS 19. The past service cost for the enhancement of pension benefits is accounted for when such benefits vest or become a constructive obligation.

The accounting policy is quite complex to apply and we will illustrate the detailed calculations involved below.

### 13.4.4 Equity compensation plans

IAS 19 does not specify recognition or measurement requirements for equity compensation plans such as shares or share options issued to employees at less than fair value. The valuation of share options has proved an extremely contentious topic and we will consider the issues that have arisen. IFRS 2 *Share-Based Payment* covers these plans.<sup>3</sup>

The following is an extract from the accounting policies in the 2007 Annual Report of the Nestlé Group:

The Group has equity-settled and cash-settled share-based payment transactions.

Equity-settled share-based payment transactions are recognised in the statement of comprehensive income with a corresponding increase in equity over the vesting period. They are fair valued at grant date and measured using the Black and Scholes model. The cost of equity-settled share-based payment transactions is adjusted annually by the expectations of vesting, for the forfeitures of the participants' rights that no longer satisfy the plan conditions, as well as for early vesting.

Liabilities arising from cash-settled share-based payment transactions are recognised in the statement of comprehensive income over the vesting period. They are fair valued at each reporting date and measured using the Black and Scholes model. The cost of cash-settled share-based payment transactions is adjusted for the forfeitures of the participants' rights that no longer satisfy the plan conditions, as well as for early vesting.

### 13.5 Defined contribution pension schemes

Defined contribution schemes (otherwise known as money purchase schemes) have not presented any major accounting problems. The cost of providing the pension, usually a percentage of salary, is recorded as a remuneration expense in the statement of comprehensive income in the period in which it is due. Assets or liabilities may exist for the pension contributions if the company has not paid the amount due for the period. If a contribution was payable more than twelve months after the reporting date for services rendered in the current period, the liability should be recorded at its discounted amount (using a discount rate based on the market rate for high-quality corporate bonds).

Disclosure is required of the pension contribution charged to the statement of comprehensive income for the period.

### Illustration of Andrew plc defined contribution pension scheme costs

Andrew plc has payroll costs of £2.7 million for the year ended 30 June 2009. Andrew plc pays pension contributions of 5% of salary, but for convenience paid £10,000 per month standard contribution with any shortfall to be made up in the July 2009 contribution.

#### Statement of comprehensive income charge

The pension cost is  $£2,700,000 \times 5\%$                       £135,000

#### Statement of financial position

The amount paid over the period is £120,000 and therefore an accrual of £15,000 will be made in the statement of financial position at 30 June 2009.

## 13.6 Defined benefit pension schemes

### 13.6.1 Position before 1998

To consider the accounting requirements for defined benefit pension schemes it is useful to look at the differences between the original IAS 19 and IAS 19 as revised in 1998. By looking at the original IAS 19 it is possible to see why a revision was necessary and what the revision to the standard was trying to achieve.

#### Statement of comprehensive income

Under the original pre-1998 standard both the costs and the fund value were computed on an actuarial basis. The valuation was needed to give an estimate of the costs of providing the benefits over the remaining service lives of the relevant employees. This was normally done in such a way as to produce a pension cost that was a level percentage of both the current and future pensionable payroll. Both the accounting standard and the actuarial professional bodies gave guidance on the assumptions and methods to be employed in the valuation and required that those guidelines were followed.

#### *Treatment of variations from regular costs*

If a valuation gave rise to a variation in the regular costs, it would normally be allocated over the remaining service lives of the employees. If, however, a variation arose out of a surplus or deficit arising from a significant reduction in pensionable employees, it was recognised when it arose unless such treatment was not prudent and involved the anticipating of income.

#### Statement of financial position

This was a much simpler approach and was based purely on the accruals principle for defined benefit pension schemes. The difference between cumulative pension costs charged in the statement of comprehensive income and the money paid either as pensions or contributions to a scheme or fund was shown as either a prepayment or an accrual. In effect the statement of financial position value was a balancing figure representing the difference between the amounts charged against the statement of comprehensive income and the amounts paid into the fund.

### Illustration of Hart plc defined benefit pension scheme under the pre-1998 approach

Hart plc operates a defined benefit pension scheme on behalf of its employees. At an actuarial valuation in early 2008 the following details were calculated:

Regular service costs (per annum)	£10,000
Estimated remaining average service lives of staff	10 years
Surplus on scheme at 31 December 2007	£30,000

Hart plc has been advised to eliminate the surplus on the scheme by taking a three-year contribution holiday, and then returning to regular service cost contributions.

The financial statements over the remaining service lives of the employees would show the following amounts:

<i>Year</i>	<i>Contribution</i>	<i>Statement of comprehensive income charge</i>	<i>Statement of financial position liability</i>
	£	£	£
2008	Nil	7,000	7,000
2009	Nil	7,000	14,000
2010	Nil	7,000	21,000
2011	10,000	7,000	18,000
2012	10,000	7,000	15,000
2013	10,000	7,000	12,000
2014	10,000	7,000	9,000
2015	10,000	7,000	6,000
2016	10,000	7,000	3,000
2017	<u>10,000</u>	7,000	—
	<u><u>70,000</u></u>		

The statement of comprehensive income charge is the total contributions paid over the period (£70,000) divided by the average remaining service lives of ten years. The effect of this is to spread the surplus over the remaining service lives in the statement of comprehensive income.

### 13.6.2 Problems of the old standard

The old IAS 19 had a number of problems in its approach which needed to be addressed by the revised standard.

#### A misleading statement of financial position

Making the statement of financial position accrual or prepayment a balancing figure based on the comparison of the amount paid and charged to date could be very misleading. In the above illustration it can be seen that the statement of financial position shows a liability even though there is a surplus on the fund. A user of the financial statements who was unaware of the method used to account for the pension scheme could be misled into believing that contributions were owed to the pension fund.

#### Current emphasis is on getting the statement of financial position to report assets and liabilities more accurately

There is an issue regarding the consistency of the presentation of the pension asset or liability with that of other assets and liabilities. Accounting is moving towards ensuring that the

statement of financial position shows a sensible position with the statement of comprehensive income recording the change in the statement of financial position. Accounting for pension schemes under the old IAS 19 does not do this.

The old IAS 19 was also inconsistent with the way that US GAAP would require pensions to be accounted for, although in its defence it was consistent with the approach adopted by UK GAAP.

### Valuation basis

The old IAS 19 required the use of an actuarial valuation basis for both assets and liabilities of the fund in deciding what level of contribution was required and whether any surplus or deficit had arisen. In addition the liabilities of the fund (i.e. the obligation to pay future pensions) were discounted at the expected rate of return on the assets. These approaches to valuation are difficult to justify and could give rise to unrealistic pension provision being made.

## 13.7 IAS 19 (revised) Employee Benefits

After a relatively long discussion and exposure period IAS 19 (revised) was issued in 1998 and it redefined how all employee benefits were to be accounted for.

IAS 19 has chosen to follow an 'asset or liability' approach to accounting for the pension scheme contributions by the employer and, therefore, it defines how the statement of financial position asset or liability should be built up. The statement of comprehensive income charge is effectively the movement in the asset or liability. The pension fund must be valued sufficiently regularly so that the statement of financial position asset or liability is kept up to date. The valuation would normally be done by a qualified actuary and is based on actuarial assumptions.

## 13.8 The liability for pension and other post-retirement costs

The liability for pension costs is made up from the following amounts:

- (a) the present value of the defined benefit obligation at the period end date;
- (b) plus any actuarial gains (less actuarial losses) not yet recognised;
- (c) minus any past service cost not yet recognised;
- (d) minus the fair value at the period end date of plan assets (if any) out of which the obligations are to be settled directly.

If this calculation comes out with a negative amount, the company should recognise a pension asset in the statement of financial position. There is a limit on the amount of the asset, if the asset calculated above is greater than the total of:

- (i) any unrecognised actuarial losses and past service cost; plus
- (ii) the present value of any future refunds from the scheme or reductions in future contributions.

Within IAS 19 there are rules regarding the maximum pension asset that can be created. Effective from 1 January 2009, IFRIC 14 *Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction* was issued that provides further guidance in respect of the maximum pension asset that can be recognised. It gives guidance that where a pension has minimum funding obligations to cover future pension service these reduce the amount of the asset that can be recognised.

Each of the elements making up the asset or liability position (a) to (d) above can now be considered.

### 13.8.1 Obligations of the fund

The pension fund obligation must be calculated using the ‘projected unit credit method’. This method of allocating pension costs builds up the pension liability each year for an extra year of service and a reversal of discounting. Discounting of the liability is done using the market yields on high-quality corporate bonds with similar currency and duration.

The Grado illustration below shows how the obligation to pay pension accumulates over the working life of an employee.

#### Grado illustration

A lump sum benefit is payable on termination of service and equal to 1% of final salary for each year of service. The salary in year 1 is £10,000 and is assumed to increase at 7% (compound) each year. The discount rate used is 10%. The following table shows how an obligation (in £) builds up for an employee who is expected to leave at the end of year 5. For simplicity, this example ignores the additional adjustment needed to reflect the probability that the employee may leave service at an earlier or later date.

<i>Year</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Benefit attributed to prior years	0	131	262	393	524
Benefit attributed to current year (1% of final salary)*	<u>131</u>	<u>131</u>	<u>131</u>	<u>131</u>	<u>131</u>
Benefit attributed to current and prior years	<u>131</u>	<u>262</u>	<u>393</u>	<u>524</u>	<u>655</u>
Opening obligation (present value of benefit attributed to prior years)	—	89	196	324	476
Interest at 10%	—	9	20	33	48
Current service cost (present value of benefit attributed to current year)	<u>89</u>	<u>98</u>	<u>108</u>	<u>119</u>	<u>131</u>
Closing obligation (present value of benefit attributed to current and prior years)**	<u>89</u>	<u>196</u>	<u>324</u>	<u>476</u>	<u>655</u>

\* Final salary is  $£10,000 \times (1.07)^4 = £13,100$ .  
 \*\* Discounting the benefit attributable to current and prior years at 10%.

### 13.8.2 Actuarial gains and losses

Actuarial gains or losses result from changes either in the present value of the defined benefit obligation or changes in the market value of the plan assets. They arise from experience adjustments – that is, differences between actuarial assumptions and actual experience. Typical reasons for the gains or losses would be:

- unexpectedly low or high rates of employee turnover;
- the effect of changes in the discount rate;
- differences between the **actual** return on plan assets and the **expected** return on plan assets.

#### Accounting treatment

Since a revision of IAS 19 in 2004 there has been a choice of accounting treatment for actuarial gains and losses. One approach follows a ‘10% corridor’ and requires recognition

of gains and losses in the profit or loss whereas an alternative makes no use of the corridor and requires gains and losses to be recognised in other comprehensive income.

#### *10% corridor approach*

- If actual gains and losses are greater than the higher of 10% of the present value of the defined benefit obligation or 10% of the market value of the plan assets, the excess gains and losses should be charged or credited to the profit or loss over the average remaining service lives of current employees. Any shorter period of recognition of gains or losses is acceptable, provided it is systematic.
- If beneath the 10% thresholds, they can be part of the defined benefit liability for the year, however, the standard also allows them to be recognised in the profit or loss.

Any actuarial gains and losses that are recognised in the profit or loss are recognised in the periods following the one in which they arise. For example, if an actuarial loss arose in the year ended 31 December 2007 that exceeded the 10% corridor and therefore required recognition in the statement of comprehensive income, that recognition would begin in the 2008 year. This means that to calculate the income statement charge or credit for the current year the cumulative unrecognised gains or losses at the end of the previous year are compared to the corridor at the end of the previous year (or the beginning of the current year).

The comprehensive illustration in section 13.10 below illustrates this treatment.

#### *Equity recognition approach*

It is acceptable to recognise actuarial gains and losses immediately in other comprehensive income.

This approach has the benefit over the corridor approach in that it does not require any actuarial gains and losses to be recognised in profit or loss; however, its drawback comes in volatility on the statement of financial position. Under this approach all actuarial gains and losses are recognised and therefore no unrecognised ones are available for offset against the statement of financial position asset or liability. As the actuarial valuations are based on fair values the volatility could be significant.

### **13.8.3 Past service costs**

Past service costs are costs that arise for a pension scheme as a result of improving the scheme or when a business introduces a plan. They are the extra liability in respect of previous years' service by employees. Do note, however, that past service costs can only arise if actuarial assumptions did not take into account the reason why they occurred. Typically they would include:

- estimates of benefit improvements as a result of actuarial gains (if the company proposes to give the gains to the employees);
- the effect of plan amendments that increase or reduce benefits for past service.

#### **Accounting treatment**

The past service cost should be recognised on a straight-line basis over the period to which the benefits vest. If already vested, the cost should be recognised immediately in profit or loss in the statement of comprehensive income. A benefit vests when an employee satisfies preconditions. For example, if a company offered a scheme where employees would only be entitled to a pension if they worked for at least five years, the benefits would vest as soon as they started their sixth year of employment. The company will still have to make

provision for pensions for the first five years of employment (and past service costs could arise in this period), as these will be pensionable service years provided the employees work for more than five years.

### 13.8.4 Fair value of plan assets

This is usually the market value of the assets of the plan (or the estimated value if no immediate market value exists). The plan assets exclude unpaid contributions due from the reporting enterprise to the fund.

### 13.8.5 Impact on net assets

For many businesses the implication on net assets on moving to the asset or liability approach to pensions required by IAS 19 has been significant. The extract below shows the impact on the net assets of Balfour Beatty for 2004, when they adopted IFRS.

#### Extract from Balfour Beatty financial statements

##### *Net assets*

Reconciliation of net assets	£m
<b>Net assets – UK GAAP at 31 December 2004</b>	<b>413</b>
IFRS 3 – Goodwill amortisation not charged	17
<b>IAS 19 – Retirement benefit obligations (net of tax)</b>	<b>(174)</b>
IFRS 2/IAS 12 – Share-based payments – tax effects	5
IAS 10 – Elimination of provision for proposed dividend	16
IAS 12 – Deferred taxation	<u>(4)</u>
<b>Net assets – IFRS restated at 31 December 2004</b>	<b>273</b>

## 13.9 The statement of comprehensive income

The statement of comprehensive income charge for a period should be made up of the following parts:

- (a) current service cost;
- (b) interest cost;
- (c) the expected return on any plan assets;
- (d) actuarial gains and losses to the extent that they are recognised under the 10% corridor;
- (e) past service cost to the extent that it is recognised;
- (f) the effect of any curtailments or settlements.

If a company takes the option of recognising all actuarial gains and losses outside profit or loss then they are recognised in full in the ‘other comprehensive income’ section of the statement of comprehensive income.

The items above are all the things that cause the statement of financial position liability for pensions to alter and the statement of comprehensive income is consequently based on the movement in the liability. Because of the potential inclusion of actuarial gains and losses and past service costs in comprehensive income the total comprehensive income is liable to fluctuate much more than the charge made under the original IAS 19.

### 13.10 Comprehensive illustration

The following comprehensive illustration is based on an example in IAS 19 (revised)<sup>4</sup> and demonstrates how a pension liability and profit or loss charge is calculated. The example does not include the effect of curtailments or settlements. This illustration demonstrates the 10% corridor approach for actuarial gains and losses.

#### Illustration

The following information is given about a funded defined benefit plan. To keep the computations simple, all transactions are assumed to occur at the year-end. The present value of the obligation and the market value of the plan assets were both 1,000 at 1 January 20X1. The average remaining service lives of the current employees is ten years.

	20X1	20X2	20X3
Discount rate at start of year	10%	9%	8%
Expected rate of return on plan assets at start of year	12%	11%	10%
Current service cost	160	140	150
Benefits paid	150	180	190
Contributions paid	90	100	110
Present value of obligations at 31 December	1,100	1,380	1,455
Market value of plan assets at 31 December	1,190	1,372	1,188

In 20X2 the plan was amended to provide additional benefits with effect from 1 January 20X2. The present value as at 1 January 20X2 of additional benefits for employee service before 1 January 20X2 was 50, all for vested benefits.

#### Required:

Show how the pension scheme would be shown in the accounts for 20X1, 20X2 and 20X3.

#### Solution to the comprehensive illustration

##### Step 1 Change in the obligation

The changes in the present value of the obligation must be calculated and used to determine what, if any, actuarial gains and losses have arisen. This calculation can be done by comparing the expected obligations at the end of each period with the actual obligations as follows:

#### Change in the obligation:

	20X1	20X2	20X3
Present value of obligation, 1 January	1,000	1,100	1,380
Interest cost	100	99	110
Current service cost	160	140	150
Past service cost – vested benefits	—	50	—
Benefits paid	(150)	(180)	(190)
<i>Actuarial (gain) loss on obligation (balancing figure)</i>	<u>(10)</u>	<u>171</u>	<u>5</u>
Present value of obligation, 31 December	<u>1,100</u>	<u>1,380</u>	<u>1,455</u>

*Step 2 Change in the assets*

The changes in the fair value of the assets of the fund must be calculated and used to determine what, if any, actuarial gains and losses have arisen. This calculation can be done by comparing the asset values at the end of each period with the actual asset values.

**Change in the assets:**

	20X1	20X2	20X3
Fair value of plan assets, 1 January	1,000	1,190	1,372
Expected return on plan assets	120	131	137
Contributions	90	100	110
Benefits paid	(150)	(180)	(190)
<i>Actuarial gain (loss) on plan assets</i> <i>(balancing figure)</i>	<u>130</u>	<u>131</u>	<u>(241)</u>
Fair value of plan assets, 31 December	<u>1,190</u>	<u>1,372</u>	<u>1,188</u>

*Step 3 The 10% corridor calculation*

The limits of the '10% corridor' need to be calculated in order to establish whether actuarial gains or losses exceed the corridor limit and therefore need recognising in profit or loss. Actuarial gains and losses are recognised in profit or loss if they exceed the 10% corridor, and they are recognised by being amortised over the remaining service lives of employees.

The limits of the 10% corridor (at 1 January) are set at the greater of:

- 10% of the present value of the obligation before deducting plan assets (100, 110 and 138); and
- 10% of the fair value of plan assets (100, 119 and 137).

	20X1	20X2	20X3
Limit of '10% corridor' at 1 January	<u>100</u>	<u>119</u>	<u>138</u>
Cumulative unrecognised gains (losses) – 1 January	—	140	98
Gains (losses) on the obligation	10	(171)	(5)
Gains (losses) on the assets	<u>130</u>	<u>131</u>	<u>(241)</u>
Cumulative gains (losses) before amortisation	140	100	(148)
Amortisation of excess over ten years (see working)	—	<u>(2)</u>	—
Cumulative unrecognised gains (losses) – 31 December	<u>140</u>	<u>98</u>	<u>(148)</u>

Working:  $\frac{(140 - 119)}{10 \text{ yrs}} = 2$  – amortisation charge in 20X2.

*Step 4 Calculate the profit or loss entry*

	20X1	20X2	20X3
Current service cost	160	140	150
Interest cost	100	99	110
Expected return on plan assets	(120)	(131)	(137)
Recognised actuarial (gains) losses		(2)	
Recognised past service cost			50
<b><i>Profit or loss charge</i></b>	<b><u>140</u></b>	<b><u>156</u></b>	<b><u>123</u></b>

*Step 5 Calculate the statement of financial position entry*

	20X1	20X2	20X3
Present value of obligation, 31 December	1,100	1,380	1,455
Fair value of assets, 31 December	(1,190)	(1,372)	(1,188)
Unrecognised actuarial gains (losses) – from Step 3	140	98	(148)
<b><i>Liability in statement of financial position</i></b>	<b><u>50</u></b>	<b><u>106</u></b>	<b><u>119</u></b>

### 13.11 Plan curtailments and settlements

A curtailment of a pension scheme occurs when a company is committed to make a material reduction in the number of employees of a scheme or when the employees will receive no benefit for a substantial part of their future service. A settlement occurs when an enterprise enters into a transaction that eliminates any further liability from arising under the fund.

The accounting for a settlement or curtailment is that a gain or loss is recognised in profit or loss when the settlement or curtailment occurs. The gain or loss on a curtailment or settlement should comprise:

- (a) any resulting change in the present value of the defined benefit obligation;
- (b) any resulting change in the fair value of the plan assets;
- (c) any related actuarial gain/loss and past service cost that had not previously been recognised.

Before determining the effect of the curtailment the enterprise must remeasure the obligations and the liability to get it to the up-to-date value.

### 13.12 Multi-employer plans

The definition of a multi-employer plan per IAS 19<sup>5</sup> is that it is a defined contribution or defined benefit plan that:

- (a) pools the assets contributed by various enterprises that are not under common control; and
- (b) uses those assets to provide benefits to employees of more than one enterprise, on the basis that contribution and benefit levels are determined without regard to the identity of the enterprise that employs the employees concerned.

An enterprise should account for a multi-employer defined benefit plan as follows:

- account for its share of the defined benefit obligation, plan assets and costs associated with the plan in the same way as for any defined benefit plan; or
- if insufficient information is available to use defined benefit accounting it should:
  - account for the plan as if it were a defined contribution plan; and
  - give extra disclosures.

In 2004 the IASB revised IAS 19 and changed the position for group pension plans in the financial statements of the individual companies in the group. Prior to the revision a group pension scheme could not be treated as a multi-employer plan and therefore any group schemes would have had to be split across all the individual contributing companies. The amendment to IAS 19, however, made it acceptable to treat group schemes as multi-employer schemes. This means that the defined benefit accounting is only necessary in the consolidated accounts and not in the individual company accounts of all companies in the group. The requirements for full defined benefit accounting are required in the individual sponsor company financial statements.

This amendment to IAS 19 was not effective until accounting periods commencing in 2006; however, earlier adoption was allowed.

### 13.13 Disclosures

The major disclosure requirements<sup>6</sup> of the standard are:

- the enterprise's accounting policy for recognising actuarial gains and losses;
- a general description of the type of plan;
- a reconciliation of the assets and liabilities including the present value of the obligations, the market value of the assets, the actuarial gains/losses and the past service cost;
- a reconciliation of the movement during the period in the net liability;
- the total expense in the statement of comprehensive income broken down into different parts;
- the actual return on plan assets;
- the principal actuarial assumptions used as at the period end date.

### 13.14 Other long-service benefits

So far in this chapter we have considered the accounting for post-retirement costs for both defined contribution and defined benefit pension schemes. As well as pensions, IAS 19 (revised) considers other forms of long-service benefit paid to employees.<sup>7</sup> These other forms of long-service benefit include:

- (a) long-term compensated absences such as long-service or sabbatical leave;
- (b) jubilee or other long-service benefits;
- (c) long-term disability benefits;
- (d) profit-sharing and bonuses payable twelve months or more after the end of the period in which the employees render the related service;
- (e) deferred compensation paid twelve months or more after the end of the period in which it is earned.

The measurement of these other long-service benefits is not usually as complex or uncertain as it is for post-retirement benefits and therefore a more simplified method of accounting is used for them. For other long-service benefits any actuarial gains and losses and past service costs (if they arise) are recognised immediately in profit or loss and no '10% corridor' is applied.

This means that the statement of financial position liability for other long-service benefits is just the present value of the future benefit obligation less the fair value of any assets that the benefit will be settled from directly.

The profit or loss charge for these benefits is therefore the total of:

- (a) current service cost;
- (b) interest cost;
- (c) expected return on plan assets (if any);
- (d) actuarial gains and losses;
- (e) past service cost;
- (f) the effect of curtailments or settlements.

### 13.15 Short-term benefits

In addition to pension and other long-term benefits considered earlier, IAS 19 gives accounting rules for short-term employee benefits.

Short-term employee benefits include items such as:

- 1 wages, salaries and social security contributions;
- 2 short-term compensated absences (such as paid annual leave and paid sick leave) where the absences are expected to occur within twelve months after the end of the period in which the employees render the related employee service;
- 3 profit-sharing and bonuses payable within twelve months after the end of the period in which the employees render the related service; and
- 4 non-monetary benefits (such as medical care, housing or cars) for current employees.

All short-term employee benefits should be recognised at an undiscounted amount:

- as a liability (after deducting any payments already made); and
- as an expense (unless another international standard allows capitalisation as an asset).

If the payments already made exceed the undiscounted amount of the benefits, an asset should be recognised only if it will lead to a future reduction in payments or a cash refund.

#### Compensated absences

The expected cost of short-term compensated absences should be recognised:

- (a) in the case of accumulating absences, when the employees render service that increases their entitlement to future compensated absences; and
- (b) in the case of non-accumulating compensated absences, when the absences occur.

Accumulating absences occur when the employees can carry forward unused absence from one period to the next. They are recognised when the employee renders services regardless of whether the benefit is vesting (the employee would get a cash alternative if they left employment) or non-vesting. The measurement of the obligation reflects the likelihood of employees leaving in a non-vesting scheme.

It is common practice for leave entitlement to be an accumulating absence (perhaps restricted to a certain number of days) but for sick pay entitlement to be non-accumulating.

### Profit-sharing and bonus plans

The expected cost of a profit-sharing or bonus plan should only be recognised when:

- (a) the enterprise has a present legal or constructive obligation to make such payments as a result of past events; and
- (b) a reliable estimate of the obligation can be made.

## 13.16 Termination benefits<sup>8</sup>

These benefits are treated separately from other employee benefits in IAS 19 (revised) because the event that gives rise to the obligation to pay is the termination of employment as opposed to the service of the employee.

The accounting treatment for termination benefits is consistent with the requirements of IAS 37 and the rules concern when the obligation should be provided for and the measurement of the obligation.

### Recognition

Termination benefits can only be recognised as a liability when the enterprise is demonstrably committed to either:

- (a) terminate the employment of an employee or group of employees before the normal retirement date; or
- (b) provide termination benefits as a result of an offer made in order to encourage voluntary redundancy.

The enterprise would only be considered to be demonstrably committed to a termination when a detailed plan for the termination is made and there is no realistic possibility of withdrawal from that plan. The plan should include as a minimum:

- the location, function and approximate number of employees whose services are to be terminated;
- the termination benefits for each job classification or function;
- the time at which the plan will be implemented.

In June 2005 the IASB issued an exposure draft of IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. When they issued this exposure draft they also proposed an amendment to IAS 19 regarding provisions for termination benefits. The proposal is that for voluntary redundancy payments provision can only be made once the employees have accepted the offer as opposed to when the detailed plan has been announced. The IASB view is that this is the date the payment becomes an obligation.

### Measurement

If the termination benefits are to be paid more than twelve months after the period end date, they should be discounted, at a discount rate using the market yield on good quality corporate bonds. Prudence should also be exercised in the case of an offer made to encourage voluntary redundancy, as provision should only be based on the number of employees expected to accept the offer.

## 13.17 IFRS 2 *Share-Based Payment*

Share awards either directly through shares or through options are very common ways of rewarding employee performance. These awards align the interests of the directors with those of the shareholders and, as such, are aimed at motivating the directors to perform in the way that benefits the shareholders. In particular, there is a belief that they will motivate the directors towards looking at the long-term success of the business as opposed to focusing solely on short-term profits. They have additional benefits also to the company and employees, for example in relation to cash and tax. If employees are rewarded in shares or options, the company will not need to pay out cash to reward the employees, and in a start-up situation where cash flow is very limited this can be very beneficial. Many dotcom companies initially rewarded their staff in shares for this reason. There are also tax benefits to employees with shares in some tax regimes which give an incentive to employees to accept share awards.

Whilst commercially share-based payments have many benefits, the accounting world has struggled in finding a suitable way to account for them. IAS 19 only covered disclosure requirements for share-based payments and had no requirements for the recognition and measurement of the payments when it was issued. The result of this was that many companies who gave very valuable rewards to their employees in the form of shares or options did not recognise any charge associated with this. The IASB addressed this by issuing, in February 2004, IFRS 2 *Share-Based Payment* which is designed to cover all aspects of accounting for share-based payments.

### 13.17.1 Should an expense be recognised?

Historically there has been some debate about whether a charge should be recognised in the statement of comprehensive income for share-based payments. One view is that the reward is given to employees in their capacity as shareholders and, as a result, it is not an employee benefit cost. Also supporters of the ‘no-charge’ view claimed that to make a charge would be a double hit to earnings per share in that it would reduce profits and increase the number of shares, which they felt was unreasonable.

Supporters of a charge pointed to opposite arguments that claimed having no charge underestimated the reward given to employees and therefore overstated profit. The impact of this was to give a misleading view of the profitability of the company. Also, making a charge gave comparability between companies who rewarded their staff in different ways. Comparability is one of the key principles of financial reporting.

For many years these arguments were not resolved and no standard was in issue but the IASB has now decided that a charge is appropriate and they have issued IFRS 2. In drawing up IFRS 2 a number of obstacles had to be overcome and decisions had to be made, for example:

- (i) What should the value of the charge be – fair value or intrinsic value?
- (ii) At what point should the charge be measured – grant date, vesting date or exercise date?
- (iii) How should the charge be spread over a number of periods?
- (iv) If the charge is made to the statement of comprehensive income, where is the opposite entry to be made?
- (v) What exemptions should be given from the standard?

IFRS 2 has answered these questions, and when introduced it made substantial changes to the profit recognised by many companies. In the UK, for example, the share-based payments charge for many businesses was one of their largest changes to profit on adopting IFRS.

### 13.18 Scope of IFRS 2

IFRS 2 proposes a comprehensive standard that would cover all aspects of share-based payments. Specifically IFRS 2 covers:

- equity-settled share-based payment transactions, in which the entity receives goods or services as consideration for equity instruments issued;
- cash-settled share-based payment transactions, in which the entity receives goods or services by incurring liabilities to the supplier of those goods or services for amounts that are based on the price of the entity's shares or other equity instruments; and
- transactions in which the entity receives goods or services and either the entity or the supplier of those goods or services may choose whether the transaction is settled in cash (based on the price of the entity's shares or other equity instruments) or by issuing equity instruments.

There are no exemptions from the provisions of the IFRS except for:

- (a) acquisitions of goods or other non-financial assets as part of a business combination; and
- (b) acquisitions of goods or services under derivative contracts where the contract is expected to be settled by delivery as opposed to being settled net in cash.

### 13.19 Recognition and measurement

The general principles of recognition and measurement of share-based payment charges are as follows:

- Entities should recognise the goods or services acquired in a share-based payment transaction over the period the goods or services are received.
- The entity should recognise an increase in equity if the share-based payment is equity-settled and a liability if the payment is a cash-settled payment transaction.
- The share-based payment should be measured at fair value.

### 13.20 Equity-settled share-based payments

For equity-settled share-based payment transactions, the entity shall measure the goods and services received, and the corresponding increase in equity:

- **directly** at the fair value of the goods and services received, unless that fair value cannot be estimated reliably;
- **indirectly**, by reference to the fair value of the equity instruments granted, if the entity cannot estimate reliably the fair value of the goods and services received.

For transactions with employees, the entity shall measure the fair value of services received by reference to the fair value of the equity instruments granted, because typically it is not possible to estimate reliably the fair value of the services received.

In transactions with the employees the IASB has decided that it is appropriate to value the benefit at the fair value of the instruments granted at their *grant date*. The IASB could have picked a number of different dates at which the options could have been valued:

- grant date – the date on which the options are given to the employees;
- vesting date – the date on which the options become unconditional to the employees;
- exercise date – the date on which the employees exercise their options.

The IASB went for the grant date as it felt that the grant of options was the reward to the employees and not the exercise of the options. This means that after the grant date any movements in the share price, whether upwards or downwards, do not influence the charge to the financial statements.

### Employee options

In order to establish the fair value of an option at grant date the market price could be used (if the option is traded on a market), but it is much more likely that an option pricing model will need to be used. Examples of option pricing models that are possible include:

- *Black–Scholes.* An option pricing model used for options with a fixed exercise date that does not require adjustment for the inability of employees to exercise options during the vesting period; or
- *Binomial model.* An option pricing model used for options with a variable exercise date that will need adjustment for the inability of employees to exercise options during the vesting period.

Disclosures are required of the principle assumptions used in applying the option pricing model.

IFRS 2 does not recommend any one pricing model but insists that whichever model is chosen a number of factors affecting the fair value of the option such as exercise price, market price, time to maturity and volatility of the share price must be taken into account. In practice the Black–Scholes model is probably most commonly used, however, many companies vary the model to some extent to ensure it fits with the precise terms of their options.

Once the fair value of the option has been established at the grant date it is charged to profit or loss over the vesting period. The vesting period is the period in which the employees are required to satisfy conditions, for example service conditions, that allow them to exercise their options. The vesting period might be within the current financial accounting period and all options exercised.

**EXAMPLE** ● Employees were granted options to acquire 100,000 shares at \$20 per share if still in employment at the end of the financial year. The market value of an option was \$1.50 per share. All employees exercised their option at the year end and the company received \$2,000,000. There will be a charge in the income statement of \$150,000. Although the company has not transferred cash, it has transferred value to the employees. IFRS 2 requires the charge to be measured as the market value of the option i.e. £1.50 per share.

However, it is more usual for options to be exercised over longer periods. In which case, the charge is spread over the vesting period by calculating a revised cumulative charge each year, and then apportioning that over the vesting period with catch-up adjustments made to amend previous under- or over-charges to profit or loss. The illustration below shows how this approach works.

When calculating the charge in profit or loss the likelihood of options being forfeited due to non-market price conditions (e.g., because the employees leave in the conditional period) should be adjusted for. For non-market conditions the charge is amended each year to reflect any changes in estimates of the numbers expected to vest.

The charge cannot be adjusted, however, for market price conditions. If, for example, the share price falls and therefore the options will not be exercised due to the exercise price

being higher than market price, no adjustment can be made. This means that if options are ‘under water’ the statement of comprehensive income will still be recognising a charge for those options.

The charge is made to the statement of comprehensive income but there was some debate about how the credit entry should be made. The credit entry must be made either as a liability or as an entry to equity, and the IASB has decided that it should be an entry to equity. The logic for not including a liability is that the future issue of shares is not an ‘obligation to transfer economic benefits’ and therefore does not meet the definition of a liability. When the shares are issued it will increase the equity of the company and be effectively a contribution from an owner.

Even though the standard specifies that the credit entry is to equity, it does not specify which item in equity is to be used. In practice it seems acceptable either to use a separate reserve or to make the entry to retained earnings. If a separate reserve is used and the options are not ultimately exercised, this reserve can be transferred to retained earnings.

#### *Illustration of option accounting*

A Ltd issued share options to staff on 1 January 20X0, details of which are as follows:

Number of staff	1,000
Number of options to each staff member	500
Vesting period	3 years
Fair value at grant date (per option)	£3
Expected employee turnover (per annum)	5%

In the 31 December 20X1 financial statements, the company revised its estimate of employee turnover to 8% per annum for the three-year vesting period.

In the 31 December 20X2 financial statements, the actual employee turnover had averaged 6% per annum for the three-year vesting period.

Options vest as long as the staff remain with the company for the three-year period.

The charge for share-based payments under IFRS 2 would be as follows:

#### *Year-ended 31 December 20X0*

In this period the charge would be based on the original terms of the share option issue.

The total value of the option award at fair value at the grant date is:

	<i>£000</i>
1000 staff × 500 options × £3 × (0.95 × 0.95 × 0.95)	1,286

The charge to the statement of comprehensive income for the period is therefore:

£1,286 ÷ 3	427
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#### *Year ended 31 December 20X1*

In this year the expected employee turnover has risen to 8% per annum. The estimate of the effect of the increase is taken into account.

Amended total expected share option award at grant date:

	<i>£000</i>	<i>£000</i>
1000 staff × 500 options × £3 × (0.92 × 0.92 × 0.92)		1,168

The charge to the statement of comprehensive income is therefore

£1,168 × <sup>2</sup> / <sub>3</sub>	779
Less: recognised to date	<u>(427)</u>

*Year ended 31 December 20X2*

The actual number of options that vest is now known.

The actual value of the option award that vests at the grant date is:

	£000	£000
1000 staff × 500 options × £3 × (0.94 × 0.94 × 0.94)		1,246

The charge to the statement of comprehensive income is therefore:

Total value over the vesting period	1,246	
Less: recognised to date	<u>(779)</u>	
		467

### Re-priced options

If an entity re-prices its options, for instance in the event of a falling share price, the incremental fair value should be spread over the remaining vesting period. The incremental fair value per option is the difference between the fair value of the option immediately before re-pricing and the fair value of the re-priced option.

## 13.21 Cash-settled share-based payments

Cash-settled share-based payments result in the recognition of a liability. The entity shall measure the goods or services acquired and the liability incurred at fair value. Until the liability is settled, the entity shall remeasure the fair value of the liability at each reporting date, with any changes in fair value recognised in profit or loss.

For example, an entity might grant share appreciation rights to employees as part of their pay package, whereby the employees will become entitled to a future cash payment (rather than an equity instrument), based on the increase in the entity's share price from a specified level over a specified period.

The entity shall recognise the services received, and a liability to pay for those services, as the employees render service. For example, some share appreciation rights vest immediately, and the employees are therefore not required to complete a specified period of service to become entitled to the cash payment. In the absence of evidence to the contrary, the entity shall presume that the services rendered by the employees in exchange for the share appreciation rights have been received. Thus, the entity shall recognise immediately the services received and a liability to pay for them. If the share appreciation rights do not vest until the employees have completed a specified period of service, the entity shall recognise the services received, and a liability to pay for them, as the employees render service during that period.

The liability shall be measured, initially and at each reporting date until settled, at the fair value of the share appreciation rights, by applying an option pricing model, taking into account the terms and conditions on which the share appreciation rights were granted, and the extent to which the employees have rendered service to date. The entity shall remeasure the fair value of the liability at each reporting date until settled.

Disclosure is required of the difference between the amount that would be charged to the statement of comprehensive income if the share appreciation rights are paid out in cash as opposed to being paid out with shares.

## 13.22 Transactions which may be settled in cash or shares

Some share-based payment transactions can be settled in either cash or shares with the settlement option being either with the supplier of the goods or services and/or with the entity.

The accounting treatment is dependent upon which counterparty has the choice of settlement.

### Supplier choice

If the supplier of the goods or services has the choice over settlement method, the entity has issued a compound instrument. The entity has an obligation to pay out cash (as the supplier can take this choice), but also has issued an equity option, as the supplier may decide to take equity to settle the transaction. The entity therefore recognises both a liability and an equity component.

The fair value of the equity option is the difference between the fair value of the offer of the cash alternative and the fair value of the offer of the equity payment. In many cases these are the same value, in which case the equity option has no value.

Once the split has been determined, each part is accounted for in the same way as other cash-settled or equity-settled transactions.

If cash is paid in settlement, any equity option recognised may be transferred to a different category in equity. If equity is issued, the liability is transferred to equity as the consideration for the equity instruments issued.

### Entity choice

For a share-based payment transaction in which an entity may choose whether to settle in cash or by issuing equity instruments, the entity shall determine whether it has a present obligation to settle in cash and account for the share-based payment transaction accordingly. The entity has a present obligation to settle in cash if the choice of settlement in equity instruments is not substantive, or if the entity has a past practice or a stated policy of settling in cash.

If such an obligation exists, the entity shall account for the transaction in accordance with the requirements applying to cash-settled share-based payment transactions.

If no such obligation exists, the entity shall account for the transaction in accordance with the requirements applying to equity-settled transactions.

## 13.23 Transitional provisions

For equity-settled share-based payment transactions, the entity shall apply the requirements of IFRS 2 to grants of shares, options or other equity instruments that were granted after 7 November 2002 that had not yet vested at the effective date of this IFRS (1 January 2005). For first-time adopters of the standard the same retrospective date applies, options granted after 7 November 2002.

For liabilities arising from share-based payment transactions existing at the effective date of this IFRS, the entity shall apply retrospectively the requirements of this IFRS, except that the entity is not required to measure vested share appreciation rights (and similar liabilities in which the counterparty holds vested rights to cash or other assets of the entity) at fair value. Such liabilities shall be measured at their settlement amount (i.e. the amount that would be paid on settlement of the liability had the counterparty demanded settlement at the date the liability is measured).

## 13.24 IAS 26 Accounting and Reporting by Retirement Benefit Plans

This standard provides complementary guidance in addition to IAS 19 regarding the way that the pension fund should account and report on the contributions it receives and

the obligations it has to pay pensions. The standard mainly contains the presentation and disclosure requirements of the schemes as opposed to the accounting methods that they should adopt.

### 13.24.1 Defined contribution plans

The report prepared by a defined contribution plan should contain a statement of net assets available for benefits and a description of the funding policy.

With a defined contribution plan it is not normally necessary to involve an actuary, since the pension paid at the end is purely dependent on the amount of fund built up for the employee. The obligation of the employer is usually discharged by the employer paying the agreed contributions into the plan. The main purpose of the report of the plan is to provide information on the performance of the investments, and this is normally achieved by including the following statements:

- (a) a description of the significant activities for the period and the effect of any changes relating to the plan, its membership and its terms and conditions;
- (b) statements reporting on the transactions and investment performance for the period and the financial position of the plan at the end of the period; and
- (c) a description of the investment policies.

### 13.24.2 Defined benefit plans

Under a defined benefit plan (as opposed to a defined contribution plan) there is a need to provide more information, as the plan must be sufficiently funded to provide the agreed pension benefits at the retirement of the employees. The objective of reporting by the defined benefit plan is to periodically present information about the accumulation of resources and plan benefits over time that will highlight an excess or shortfall in assets.

The report that is required should contain<sup>9</sup> either:

- (a) a statement that shows:
  - (i) the net assets available for benefits;
  - (ii) the actuarial present value of promised retirement benefits, distinguishing between vested benefits and non-vested benefits; and
  - (iii) the resulting excess or deficit; or
- (b) a statement of net assets available for benefits including either:
  - (i) a note disclosing the actuarial present value of promised retirement benefits, distinguishing between vested benefits and non-vested benefits; or
  - (ii) a reference to this information in an accompanying report.

The most recent actuarial valuation report should be used as a basis for the above disclosures and the date of the valuation should be disclosed. IAS 26 does not specify how often actuarial valuations should be done but suggests that most countries require a triennial valuation.

When the fund is preparing the report and using the actuarial present value of the future obligations, the present value could be based on either projected salary levels or current salary levels. Whichever has been used should be disclosed. The effect of any significant changes in actuarial assumptions should also be disclosed.

### Report format

IAS 26 proposes three different report formats that will fulfil the content requirements detailed above. These formats are:

- (a) A report that includes a statement that shows the net assets available for benefits, the actuarial present value of promised retirement benefits, and the resulting excess or deficit. The report of the plan also contains statements of changes in net assets available for benefits and changes in the actuarial present value of promised retirement benefits. The report may include a separate actuary's report supporting the actuarial present value of promised retirement benefits.
- (b) A report that includes a statement of net assets available for benefits and a statement of changes in net assets available for benefits. The actuarial present value of the promised retirement benefits is disclosed in a note to the statements. The report may also include a report from an actuary supporting the actuarial value of the promised retirement benefits.
- (c) A report that includes a statement of net assets available for benefits and a statement of changes in net assets available for benefits with the actuarial present value of promised retirement benefits contained in a separate actuarial report.

In each format a trustees' report in the nature of a management or directors' report and an investment report may also accompany the statements.

### 13.24.3 All plans – disclosure requirements<sup>10</sup>

For all plans, whether defined contribution or defined benefit, some common valuation and disclosure requirements exist.

#### Valuation

The investments held by retirement benefit plans should be carried at fair value. In most cases the investments will be marketable securities and the fair value is the market value. If it is impossible to determine the fair value of an investment, disclosure should be made of the reason why fair value is not used.

Market values are used for the investments because this is felt to be the most appropriate value at the report date and the best indication of the performance of the investments over the period.

#### Disclosure

In addition to the specific reports detailed above for defined contribution and defined benefit plans, the report should also contain:

- (a) a statement of net assets available for benefits disclosing:
  - assets at the end of the period suitably classified;
  - the basis of valuation of assets;
  - details of any single investment exceeding either 5% of the net assets available for benefits or 5% of any class or type of security;
  - details of any investment in the employer;
  - liabilities other than the actuarial present value of promised retirement benefits;

- (b) a statement of changes in net assets for benefits showing the following:
- employer contributions;
  - employee contributions;
  - investment income such as interest or dividends;
  - other income;
  - benefits paid or payable;
  - administrative expenses;
  - other expenses;
  - taxes on income;
  - profits or losses on disposal of investment and changes in value of investments;
  - transfers from and to other plans;
- (c) a summary of significant accounting policies;
- (d) a description of the plan and the effect of any changes in the plan during the period.

## Summary

Accounting for employee benefits has always been a difficult problem with different views as to the appropriate methods.

The different types of pension scheme and the associated risks add to the difficulties in terms of accounting. The accounting treatment for these benefits has recently changed with the current view that the asset or liability position takes priority over the profit or loss charge. However, one consequence of giving the statement of financial position priority is that this change to the statement of comprehensive income can be much more volatile and this is considered by some to be undesirable.

Within the international community agreement does not exist on how these benefits should be accounted for. An interesting recent development is the option to use 'other comprehensive income' to record variations from the normal pension costs, i.e. for actuarial gains and losses, rather than taking them to profit or loss. The latest revisions do give significant choice to the companies in how they account for their pension schemes, which could be a criticism of the standard. Pension accounting is a very difficult area to gain global agreement on, and therefore IAS 19 (revised) could be construed as an early step towards more global convergence.

IFRS 2 is the first serious attempt of the IASB to deal with the accounting for share-based payments. It requires companies to recognise that a charge should be made for share-based payments and, in line with other recent standards such as financial instruments, it requires that charge to be recognised at fair value. There has been criticism of the standard in that it brings significant estimation into assessing the amount of charges to profit; however, overall the standard has been relatively well received with companies coping well with its requirements so far. What is unclear at present is whether the requirements will change the way that companies reward their staff; for this we will have to wait and see.

## REVIEW QUESTIONS

- 1 Outline the differences between a defined benefit and a defined contribution pension scheme.
- 2 If a defined contribution pension scheme provided a pension that was 6% of salary each year, the company had a payroll cost of €5 million, and the company paid €200,000 in the year, what would be the statement of comprehensive income charge and the statement of financial position liability at the year-end?
- 3 'The approach taken in IAS 19 before its 1998 revision was to match an even pension cost against the period the employees provided service. This follows the accruals principle and is therefore fundamentally correct.' Discuss.
- 4 Under the revised IAS 19 (post 1998) what amount of actuarial gains and losses should be recognised in profit or loss?
- 5 Past service costs are recognised under IAS 19 (revised) immediately if the benefit is 'vested'. In what circumstances would the benefits not be vested?
- 6 What is the required accounting treatment for a curtailment of a defined benefit pension scheme?
- 7 What distinguishes a termination benefit from the other benefits considered in IAS 19 (revised)?
- 8 The issue of shares by companies, even to employees, should not result in a charge against profits. The contribution in terms of service that employees give to earn their rewards are contributions as owners and not as employees and when owners buy shares for cash there is no charge to profit. Discuss.
- 9 The use of option pricing models to determine the charges to profit or loss brings undesired estimation and subjectivity into the financial statements. Discuss.
- 10 Briefly summarise the required accounting if a company gives their staff a cash bonus directly linked to the share price.
- 11 Explain what distinguishes the different types of share-based payment, equity-settled, cash-settled and equity with a cash alternative.
- 12 A plc issues 50,000 share options to its employees on 1 January 2006, which the employees can only exercise if they remain with the company until 31 December 2008. The options have a fair value of £5 each on 1 January 2006.

It is expected that the holders of options over 8,000 shares will leave A plc before 31 December 2008.

In March 2006 adverse press comments regarding A plc's environmental policies and a downturn in the stock market cause the share price to fall significantly to below the exercise price on the options. The share price is not expected to recover in the foreseeable future.

### Required

**What charge should A plc recognise for share options in the financial statements for the year-ended 31 December 2006?**

- 13 The following are extracts from the financial statements of Heidelberger Druckmaschinen AG showing the accounting policy and detailed notes regarding the provision of pensions according to IAS 19. As can be seen the disclosures are quite complex but they attempt to give a sensible statement of financial position and statements of comprehensive income position.

### Accounting policy disclosure

Provisions for pensions and similar obligations comprise both the provision obligations of the Group under defined benefit plans and defined contribution plans. Pension obligations are determined according to the projected unit credit method (IAS 19) for defined benefit plans. Actuarial expert opinions are obtained annually in this connection. Calculations are based on an assumed trend of 3.5% (previous year: 2.5%) for the growth in pensions, and a discount rate of 6.0% (previous year: 6.0%). The probability of death is determined according to Heubec's current mortality tables as well as comparable foreign mortality tables.

In the case of defined contribution plans (for example, direct insurance policies), compulsory contributions are offset directly as an expense. No provisions for pension obligations are formed, as in these cases our Company does not have any liability over and above its liability to make premium payments.

### Provisions for pensions and similar obligations (Note 15 in the financial statements)

We maintain benefit programs for the majority of employees for the period following their retirement – either a direct program or one financed by payments of premiums to private institutions. The level of benefits payments depends on the conditions in particular countries. The amounts are generally based on the term of employment and the salary of the employees. The liabilities include both those arising from current pensions as well as vested pension rights for pensions payable in the future. The pension payments expected following the beginning of benefit payment are accrued over the entire service time of the employee.

The provisions for pensions and similar obligations are broken down as follows:

	31 Mar 98	31 Mar 99
Net present value of the pension claims	408,208	445,054
Adjustment amount based on (not offset) actuarial profits/losses	<u>-12,843</u>	<u>-18,225</u>
Provisions for pensions and similar obligations	<u>395,365</u>	<u>426,829</u>

The amount of €18,225 thousand (previous year: €12,843 thousand), which is not yet adjusted arises largely from profits/losses in connection with deviations of the actual income trends from the assumptions that were the basis of the calculation. As soon as it exceeds 10% of total liabilities, this amount is carried as an expense over the average remaining period of service of the staff (IAS 19).

The expense for the pension plan is broken down as follows:

	31 Mar 98	31 Mar 99
Expense for pension claims added during the financial year*	16,902	17,084
Interest expense for claims already acquired	21,583	22,855
Net additions to pension provision	38,485	39,939
Expenses for other pension plans*	<u>14,848</u>	<u>19,407</u>
	<u>53,333</u>	<u>59,346</u>

\* The expense for the pension plan included under personnel expenses totals 36,491 thousand (previous year: 31,750 thousand).

We include interest expenses for already acquired pension claims under interest and similar expenses.

#### Required:

- (a) Explain the projected unit credit method for determining pension obligations for defined benefit plans.
- (b) Why does the company need to use a discount rate?
- (c) Explain the reference to the 10% corridor.

## EXERCISES

An extract from the solution is provided on the Companion Website ([www.pearsoned.co.uk/elliott-elliott](http://www.pearsoned.co.uk/elliott-elliott)) for exercises marked with an asterisk (\*).

### Question 1

#### Kathryn

Kathryn plc, a listed company, provides a defined benefit pension for its staff, the details of which are given below.

#### Pension scheme

As at the 30 April 2004, actuaries valued the company's pension scheme and estimated that the scheme had assets of £10.5 million and obligations of £10.2 million (using the valuation methods prescribed in IAS 19).

The actuaries made assumptions in their valuation that the assets would grow by 11% over the coming year to 30 April 2005, and that the obligations were discounted using an appropriate corporate bond rate of 10%. The actuaries estimated the current service cost at £600,000. The actuaries informed the company that pensions to retired directors would be £800,000 during the year, and the company should contribute £700,000 to the scheme.

At 30 April 2005 the actuaries again valued the pension fund and estimated the assets to be worth £10.7 million, and the obligations of the fund to be £10.9 million.

*Assume that contributions and benefits are paid on the last day of each year.*

**Required:**

- (a) Explain the reasons why IAS 19 was revised in 1998, moving from an actuarial income driven approach to a market-based asset and liability driven approach. Support your answer by referring to the *Framework Document* principles.
- (b) Show the extracts from the statement of comprehensive income and statement of financial position of Kathryn plc in respect of the information above for the year ended 30 April 2005. You do not need to show notes to the accounts.

[The accounting policy adopted by Kathryn plc is to recognise actuarial gains and losses immediately in other comprehensive income as allowed by IAS 19 in its 2004 amendment.]

### \* Question 2

#### Donna Inc

Donna Inc operates a defined benefit pension scheme for staff. The pension scheme has been operating for a number of years but not following IAS 19. The finance director is unsure of which accounting policy to adopt under IAS 19 because he has heard very conflicting stories. He went to one presentation in 2003 that referred to a '10% corridor' approach to actuarial gains and losses, recognising them in profit or loss, but went to another presentation in 2004 that said actuarial gains and losses could be recognised in other comprehensive income.

The pension scheme had market value of assets of £3.2 million and a present value of obligations of £3.5 million on 1 January 2002. There were no actuarial gains and losses brought forward into 2002.

The details relevant to the pension are as follows (in 000s) are:

	2002	2003	2004
Discount rate at start of year	6%	5%	4%
Expected rate of return on plan assets			
at start of year	10%	9%	8%
Current service cost	150	160	170
Benefits paid	140	150	130
Contributions paid	120	120	130
Present value of obligations at 31 December	3,600	3,500	3,200
Market value of plan assets at 31 December	3,400	3,600	3,600

In all years the average remaining service lives of the employees was ten years. Under the 10% corridor approach any gains or losses above the corridor would be recognised over the average remaining service lives of the employees.

**Required:**

**Advise the finance director of the differences in the approach to actuarial gains and losses following the '10% corridor' and the recognition in equity. Illustrate your answer by showing the impact on the pension for 2002 to 2004 under both bases.**

### Question 3

The following information (in £m) relates to the defined benefit scheme of Basil plc for the year ended 31 December 20X7:

Fair value of plan assets at 1 January 20X7 £3,150 and at 31 December 20X7 £2,384; contributions £26; current service cost £80; benefits paid £85; past service cost £150; present value of the obligation at 1 January 20X7 £3,750 and at 31 December 20X7 £4,192.

The discount rate was 7% at 31 December 20X6 and 8% at 31 December 20X7. The expected rate of return on plan assets was 9% at 31 December 20X6 and 10% at 31 December 20X7.

**Required:**

**Show the amounts that will be recognised in the statement of comprehensive income and statement of financial position for Basil plc for the year ended 31 December 20X7 under IAS 19 *Employee Benefits* and the movement in the net liability.**

### \* Question 4

C plc wants to reward its directors for their service to the company and has designed a bonus package with two different elements as follows. The directors are informed of the scheme and granted any options on 1 January 20X7.

- I Share options over 300,000 shares that can be exercised on 31 December 20Y0. These options are granted at an exercise price of €4 each, the share price of C plc on 1 January 20X7. Conditions of the options are that the directors remain with the company, and the company must achieve an average increase in profit of at least 10% per year, for the years ending 31 December 20X7 to 31 December 20X9. C plc obtained a valuation on 1 January 20X7 of the options which gave them a fair value of €3.

No directors were expected to leave the company but, surprisingly, on 30 November 20X9 a director with 30,000 options did leave the company and therefore forfeited his options. At the

31 December 20X7 and 20X8 year-ends C plc estimated that they would achieve the profit targets (they said 80% sure) and by 31 December 20X9 the profit target had been achieved.

By 31 December 20Y0 the share price had risen to €12 giving the directors who exercised their options an €8 profit per share on exercise.

- 2 The directors were offered a cash bonus payable on 31 December 20X8 based on the share price of the company. Each of the five directors was granted a €5,000 bonus for each €1 rise in the share price or proportion thereof by 31 December 20X8.

On 1 January 20X7 the estimated fair value of the bonus was €75,000; this had increased to €85,000 by 31 December 20X7, and the share price on 31 December 20X8 was €8 per share.

**Required**

Show the accounting entries required in the years ending 31 December 20X7, 20X8 and 20X9 for the directors' options and bonus above.

**Question 5**

The following information is available for the year ended 31 March 20X6 (values in \$m):

Present value of scheme liabilities at 1 April 20X5 \$1,007; Fair value of plan assets at 1 April 20X5 \$844; Benefits paid \$44; Expected return on plan assets \$67; Contributions paid by employers \$16; Current service costs \$28; Past service costs \$1; Actuarial gains on assets \$31; Actuarial losses on liabilities \$10; Interest costs \$58.

**Required:**

- (a) Calculate the net liability to be recognised in the statement of financial position.  
 (b) Show the amounts recognised in the statement of comprehensive income.

**Question 6**

- (a) IAS 19 *Employee Benefits* was amended in December 2004 to allow a choice of methods for the recognition of actuarial gains and losses.

**Required:**

Explain the treatments of actuarial gains and losses currently permitted by IAS 19.

- (b) The following information relates to the defined benefit employees compensation scheme of an entity:

Present value of obligation at start of 2008 (\$000)		20,000
Market value of plan assets at start of 2008 (\$000)		20,000
Expected annual return on plan assets		10%
Discount rate per year		8%
	2008	2009
	\$000	\$000
Current service cost	1,250	1,430
Benefits paid out	987	1,100
Contributions paid by entity	1,000	1,100
Present value of obligation at end of the year	23,000	25,500
Market value of plan assets at end of the year	21,500	22,300

Actuarial gains and losses outside the 10% corridor are to be recognised in full in the income statement. Assume that all transactions occur at the end of the year.

Required:

- (a) Calculate the present value of the defined benefit plan obligation as at the start and end of 2008 and 2009 showing clearly any actuarial gain or loss on the plan obligation for each year.
- (b) Calculate the market value of the defined benefit plan assets as at the start and end of 2008 and 2009 showing clearly any actuarial gain or loss on the plan assets for each year.
- (c) Applying the 10% corridor show the total charge in respect of this plan in the income statement for 2008 and the statement of comprehensive income for 2009.

*(The Association of International Accountants)*

### Question 7

On 1 October 2005 Omega granted 50 employees options to purchase 500 shares in the entity. The options vest on 1 October 2007 for those employees who remain employed by the entity until that date. The options allow the employees to purchase the shares for \$10 per share. The market price of the shares was \$10 on 1 October 2005 and \$10.50 on 1 October 2006. The market value of the options was \$2 on 1 October 2005 and \$2.60 on 1 October 2006. On 1 October 2005 the directors estimated that 5% of the relevant employees would leave in each of the years ended 30 September 2006 and 2007 respectively. It turned out that 4% of the relevant employees left in the year ended 30 September 2006 and the directors now believe that a further 4% will leave in the year ended 30 September 2007.

Required:

Show the amounts that will appear in the balance sheet of Omega as at 30 September 2006 in respect of the share options and the amounts that will appear in the income statement for the year ended 30 September 2006.

You should state where in the balance sheet and where in the income statement the relevant amounts will be presented. Where necessary you should justify your treatment with reference to appropriate international financial reporting standards.

*(Dip IFR December 2006)*

### \* Question 8

On 1 January 20X1 the company obtained a contract in order to keep the factory in work but had obtained it on a very tight profit margin. Liquidity was a problem and there was no prospect of offering staff a cash bonus. Instead, the company granted its 80 production employees share options for 1,000 shares each at £10 per share. There was a condition that they would only vest if they still remained in employment at 31 December 20X2. The options were then exercisable during the year ended 31 December 20X3. Each option had an estimated fair value of £6.5 at the grant date.

At 31 December 20X1:

The fair value of each option at 31 December 20X1 was £7.5.

4 employees had left.

It was estimated that 16 of the staff would have left by 31 December 20X2.

The share price had increased from £9 on 1 January 20X1 to £9.90.

Required:

Calculate the charge to the income statement for the year ended 31 December 20X1.

## References

- 1 IAS 19 *Employee Benefits*, IASB, amended 2002.
- 2 IAS 26 *Accounting and Reporting by Retirement Benefit Plans*, IASC, reformatted 1994.
- 3 IFRS 2 *Share-Based Payment*, IASB, 2004.
- 4 IAS 19, Appendix 1.
- 5 *Ibid.*, para. 7.
- 6 *Ibid.*, para. 120.
- 7 *Ibid.*, para. 126.
- 8 *Ibid.*, para. 132.
- 9 IAS 26, para. 28.
- 10 *Ibid.*, para. 32.