

The provision of occupational pension schemes for employees is now common practice in the UK and in many other countries. Expenditure on pensions can be extremely significant, adding 20 per cent, or even more, to the costs of employees' remuneration.

Prior to the issue of SSAP 24 *Accounting for Pension Costs*, in 1988, the treatment of pension costs in financial statements was subject to very little regulation through either statute law or professional guidance. The result was that, in general, the financial statements failed to disclose a realistic figure for the costs of employing staff in that they did not indicate the actual costs of the pension and, accordingly, balance sheets often failed to disclose the liability that the company faced in discharging its obligations. SSAP 24 was a major step forward in bringing some degree of order to what had been a very disorganised field of accounting activity.

Despite, or possibly in part because of, the pioneering nature of SSAP 24, many commentators believed that it suffered from a number of conceptual weaknesses and allowed reporting entities too much scope. However it took a long time to bring forward an improved standard. It was only after many years' deliberation that the ASB published FRED 20 *Retirement Benefits*, in 1999, and it was not until November 2000 that the resulting standard, FRS 17 was published. That is not the end of the story because, for reasons we will explore in this chapter, FRS 17 has proved to be extremely controversial and the ASB has now decided that it will not be implemented in full until 2005. We will therefore need to deal in some detail with both standards in this chapter.

Thus in this chapter we will cover:

- SSAP 24 *Accounting for Pension Costs* (1988)
- FRS 17 *Retirement Benefits* (2000)
- IAS 19 (revised) *Employee Benefits* (revised 2000)
- FRED (unnumbered) *Amendment to FRS 17* (2002)

Introduction

We think it would be helpful if we started by describing the main types of pension schemes that are to be found and, at the same time, explaining some of the terms which have to be understood if the reader is to make sense of the rest of the chapter.

- 1 *Funded or unfunded*: In the case of the funded scheme, contributions are paid into a separate fund that is usually administered by trustees who invest the contributions and meet the pension commitments. The contributions are invested in a portfolio of property and/or securities either directly or indirectly by the purchase of insurance policies. In unfunded schemes, contributions are not placed in a separate fund but are reinvested in

the employer's business and pensions are subsequently paid on a 'pay-as-you-go' basis. An unfunded pension scheme is obviously the more risky from the point of view of the employees and the vast majority of pension schemes in the UK are funded.

- 2 *Defined benefits and defined contribution scheme:* In defined contribution schemes, the contributions are determined and the employees receive pensions on the basis of whatever amounts are available from those contributions and the returns earned from their investment. The risks in such a scheme fall entirely upon the shoulders of the employees. Such a scheme poses few problems for the accountant. The amount to be charged as the cost of providing pensions is clearly determinable as the amount payable to the scheme by the employer in respect of a particular year.

Under a defined benefit scheme the retirement benefits are determined, sometimes on the basis of average salary over the employee's period of service, but more often on the basis of salary in the final year or years before retirement. For such a scheme the cost of pensions in a particular year is, as we shall see, much more difficult to determine. It depends not only upon the contribution payable in respect of a year but also upon the pensions that will be paid in the future. The pensions payable depend on such factors as the future rate of increase in wages and salaries, the number of staff leaving the scheme before retirement and the life expectancy of pensioners and, where relevant, their dependants. In addition, the cost in the year of providing future pensions depends upon the rate of return to be earned on contributions and reinvested receipts. It is the need to take a very long-term view in the face of great uncertainties that makes accounting for defined benefit schemes such an interesting and difficult problem for the accountant.

Fortunately for many employees, but perhaps unfortunately for accountants, most UK pension schemes, certainly those of major employers, have been of the defined benefit variety. However, in recent years, a large number of major employers have closed down their defined benefits schemes to new employees and replaced them with defined contribution schemes.

- 3 *Contributory or non-contributory:* Some schemes are contributory, where the employees and the employer share the cost, while others are non-contributory, where the whole cost falls on the employer.

The issues

We will in this chapter concentrate on funded schemes where the assets are held by the trustees of the pension fund on whom falls the liability of paying the actual pension. Pension schemes are not normally subsidiaries, or quasi-subsidaries, and it is not, therefore, appropriate to consolidate the scheme into the employer's financial statements. However, a pension scheme can give rise to assets and liabilities of the employer but only to the extent to which the employer is entitled to benefit from any surplus or has a legal or constructive obligation to make good any deficit.

The tasks that have to be performed are:

- determine the amount that must be paid into the pension fund each year in order to allow it to pay the promised pensions, this is sometimes called the regular contribution;
- measure the assets and liabilities of the fund;
- decide how any difference between the assets and liabilities should be reflected in the financial statements.

Pensions involve, by their nature, long-term issues including such things as life expectancy. Thus actuaries play a key part in assessing the regular contribution and in valuing the liabilities, although their role in valuing assets will be of less significance when the provisions of FRS 17 are applied in full.

We will illustrate the issues involved and the approach that might be taken by the actuary by describing a very simple scheme involving only one employee.

Let us suppose that at the inception of the scheme the sole employee, Mac, is aged 41 and is due to retire in 24 years' time at 65. It is currently estimated that his life expectancy on his date of retirement will be 15 years.

The actuarial calculations might proceed as follows:

Present salary	£20 000
Assume that Mac's salary will increase by 6% per year	
Hence, salary on retirement = £20 000 (1.06) ²⁴ ≈ £81 000.	

If, on retirement, a pension of half final salary is payable, the fund will need to be sufficient to pay £40 500 per annum for 15 years. Assuming, for simplicity, that the retirement pension will be paid at the end of each year and that it is expected that the assets in the fund will earn 8 per cent per annum for the period following retirement, the capital value of the fund at retirement age will need to be £346 660.¹

If we assume that, in the period until retirement, the annual return on investments is only 7 per cent, then 13 per cent of the staff member's salary will need to be paid into the fund.²

Actuarial gains and losses

Now let us see how things can go wrong, or to be more precise, how things might change. Few, if any, pension funds put all their investments in fixed-interest securities and so the return earned will probably not be 7 per cent. If the assets in, say, five years are worth more than the actuary had expected, how should that gain be treated? Should the surplus be credited to the profit and loss account immediately or over some future period? A different question is whether the difference between the expected and actual value of the assets should be returned to the employer immediately or used to reduce the future regular payments.

There may also be changes in the actuarial assumptions. Actuarial science is based on averages and people are, on average, living longer. Thus, suppose that five years into the scheme, the actuary revises his estimate of Mac's life expectancy and now expects that he will live for 18 years after retirement rather than 15. The fund will not be sufficient to pay the expected required pension, so what should be done? Should the extra cost be charged to the current profit and loss account immediately or spread over some future period? A different

¹ On the date of retirement the required balance on the fund x is given by:

$$x = £40\,500 \sum_{i=1}^{15} (1.08)^{-i} = £346\,660$$

$$\text{or } x = £40\,500 a_{\overline{15}|} \text{ at } I = 0.08$$

² Let y be the required fraction of the annual salary which needs to be paid into the fund, then

$$£346\,660 = y \, £20\,000 \sum_{i=1}^{24} (1.06)^i (1.07)^{24-i}$$

from which $y = 0.13$.

question concerns whether the employer should immediately pay the extra required or simply increase the regular payments to reflect the new assumption.

The above are simple examples of what are termed actuarial gains and losses and as we shall see SSAP 24 and FRS 17 take very different lines as to how they should be treated.

Valuation of pension fund assets and liabilities

There are basically two ways of measuring pension fund assets: the *actuarial approach* (the basis underlying SSAP 24) and the *market approach* which is the one most commonly used in countries other than the United Kingdom and is the method specified in both FRS 17 and IAS 19 *Employee Benefits* (revised 1998).

The actuarial approach measures both the obligations of the fund and the assets of the fund by reference to the present values of the expected cash flows. In contrast, the market approach, as the name implies, values the assets by reference to their current market values while, in theory at least, the liabilities would be measured by the price that would have to be paid to purchase appropriate deferred annuities. These two methods are obviously not unconnected; for example, a change in the market's view as to long-term interest rates will affect the actuary's calculations of present values, the current value of investments and, in particular, the market value of deferred annuities. But in the short term, there may be considerable variations due to the short-term market fluctuations.

As we shall see, those who would advocate a market approach recognise that it is rarely possible to identify market values against which the obligations of the pension fund can be measured. Thus it is accepted that the fund's liability will have to be based on the present value of the expected pension payments but that still leaves open the choice of interest rate. Traditionally, the actuarial approach discounted the future pension payments at the same rate as that used to estimate the return on assets. An alternative approach, which is more in tune with the market approach, is to use a rate of interest that reflects the time value of money plus a risk premium relating not to the risks associated with the returns on the assets but to the risk that the employer will not be able to meet its obligations, see p. 262.

SSAP 24 and FRS 17– the differences in outline

We will look at the differences between SSAP 24 and FRS 17 in more depth after we have properly introduced the two standards but readers will find it helpful, before examining SSAP 24, to be aware of the major differences between the two approaches.

SSAP 24 focuses on the profit and loss account and is primarily concerned with matching revenue and expenses even if this results in some rather unsatisfactory estimates of assets and liabilities. Its stated objective is to require 'the employer to recognise the cost of providing pensions on a systematic and rational basis over the period during which he benefits from the employees' services'.³ No mention here of the reporting of assets and liabilities.

In contrast, FRS 17 takes a much more 'balance sheet approach' and seeks to ensure that the fair values of the pension fund's assets and liabilities are the bases for determining whether the employer has an obligation to the fund or the fund has an obligation to the employer. Specifically the objectives of FRS 17 are to ensure that:

³ SSAP 24, Para. 16.

- a. financial statements reflect at fair value the assets and liabilities arising from an employer's retirement benefit obligations and any related funding;
- b. the operating costs of providing retirement benefits to employees are recognised in the accounting period(s) in which the benefits are earned by the employees, and the related finance costs and any other changes in value of the assets and liabilities are recognised in the accounting periods in which they arise; and
- c. the financial statements contain adequate disclosure of the cost of providing retirement benefits and the related gains, losses, assets and liabilities.⁴

The main consequences of the very different approaches taken by FRS 17 and SSAP 24 are:

- SSAP 24 allows certain types of differences, called experience differences, to be written off over the remaining service life of the current employees while FRS 17 calls for immediate recognition in the financial statements.
- SSAP 24 is based on the actuarial method of valuation, for both pension fund assets and liabilities, while FRS 17 is firmly rooted in the market approach.
- FRS 17 is much more prescriptive about the methods that should be used.

In addition, in line with the principle that users should be provided with more 'narrative' information that would enable them more easily to appreciate the information provided in the financial statements, the disclosure requirements of FRS 17 are more extensive than the not inconsiderable requirements of SSAP 24.

SSAP 24 Accounting for Pension Costs

The accounting principles underlying SSAP 24

Prior to the adoption of SSAP 24 many companies simply showed their contribution to the pension scheme as the pension cost for the period. The contribution may have been affected by factors other than those relating solely to the needs of the fund. Employers might, for example, increase the contribution for a year or for a limited period, with a view to reducing contributions in the future. Conversely, employers have in periods of financial stringency reduced their contributions. Such actions may have been effective in achieving the desired ability to manipulate the levels of reported profit, but they did little to help users of financial statements assess the total costs of employment for the period.

The accounting objective set by SSAP 24 was to require employing companies to recognise the cost of providing pensions on a systematic and rational basis over the period in which they benefit from the services of their employees and to recognise that, in many cases, this cost may well not be equal to the contribution made to the pension scheme in any period.⁵

Thus, in a very simple world, the actuary's task is to estimate what proportion of pensionable pay would have to be paid into the scheme each year to pay for the pensions, and the whole of this (in the case of a non-contributory scheme) or a part of this (in a contributory scheme) would represent the cost to the employer. This cost can be regarded as the regular pension cost.

⁴ FRS 17, Para. 1.

⁵ Since tax relief is based on the contributions paid to the scheme the difference has deferred tax implications. See Chapter 12.

But we do not live in such a state of simplicity and both the world and employers change their minds. The world changes its mind through altered interest rates, changes in the level of earnings and by allowing people to die other than when predicted by the actuary. Employers can also change their minds (or have their minds changed for them) and vary the conditions under which pensions are paid.

Thus, there will be variations to the regular cost and a large part of SSAP 24 is devoted to discussing how to account for these variations. Variations from the regular cost may be due to the following:

- (a) the results of the world not being as the actuary expected it to be when he or she last worked out the regular cost – experience surpluses or deficiencies;
- (b) changes in actuarial assumptions and methods and retroactive changes in benefits or conditions of membership;
- (c) discretionary pensions increases.

Bases of the actuarial methods

In general SSAP 24 does not specify how the actuary should determine the actuarial value of pension fund assets and liabilities. Much is left for the actuary to decide:

The selection of the actuarial method and assumptions to be used in assessing the pension cost of a defined benefit scheme is a matter of judgement for the actuary in consultation with his client, taking account of the circumstances of the specific company and its work force. (Para.18)

It would perhaps not be too great an exaggeration to say that, as far as SSAP 24 is concerned, it is a matter of ‘anything actuarial goes’. FRS 17 is far more prescriptive and it will be convenient to defer our discussion of some of the main actuarial methods used to that section of the chapter in which we discuss FRS 17 in more detail.

Experience surpluses or deficiencies

In deciding whether the fund is in balance, that is whether it has sufficient assets to pay the required pensions given all the necessary assumptions about salary increases, rates of return and the like, the pension fund’s assets are compared with its liabilities. Part of any difference may be due to changes in policy and assumptions about the future; these will be dealt with in the reassessment of the regular costs but, as noted above, part of the difference will, in all likelihood, be because some of the assumptions made at the last review proved to be incorrect, for example the rate of wage and salary increases might have been under- or over-estimated. This part of the difference is known as experience surpluses or deficiencies, which are defined in SSAP 24 as follows:

An experience surplus or deficiency is that part of the excess or deficiency of the actuarial value of the assets over the actuarial value of the liabilities, on the basis of the valuation method used, which arises because events have not coincided with the actuarial assumptions made for the last valuation. (Para. 63)

The definition refers, not to the market value of the assets, but to their ‘actuarial value’, which is a value based on assumptions about future cash flows and interest rates and which may well, from time to time, differ significantly from the current market value. As we

explained earlier the use of actuarial rather than market values was a controversial issue and FRS 17 takes a very different approach.

But at this stage we will concentrate on the treatment of experience surpluses and deficiencies. Should they be credited (or charged) to the past, the current year or the future?

SSAP 24 specifies that, with certain exceptions to which we will refer later, material experience deficiencies, and surpluses, should be dealt with by adjusting current and future costs and not by immediately expensing (or crediting) the amount. In accordance with the main accounting objective of SSAP 24, the normal period over which the effect of the deficiency or surplus should be spread is the expected remaining service life of the current employees in the scheme after making suitable allowances for future withdrawals, or the average remaining service lives of the current membership.

There are three exceptions to the general rule:

- (a) Where there is a significant reduction in the number of employees covered by the scheme (see below).
- (b) Where prudence requires a material deficiency to be made up over a shorter period. This exception is strictly limited to cases where a significant additional payment has to be paid into the scheme arising from a major transaction or event outside the actuarial assumptions and normal running of the scheme; a possible example is the consequence of a major mismanagement of the assets of the pension scheme. The standard does not specify the period over which the additional charge should be spread; it merely allows a shorter period than would otherwise be required.
- (c) Where a refund is made to employers subject to deduction of tax within the provisions of the Finance Act 1986, or similar legislation. In such cases the employer may (not must) depart from the normal spreading rule and recognise the refund in the period in which it occurs.

The exception arising from a significant reduction of employees merits further comment. There have been many instances in recent years where reorganisation schemes have resulted in significant redundancies. These have often led to large surpluses in the pension funds, with the result that future contributions are reduced or eliminated for a period (a 'contribution holiday'), or contributions are refunded.

In such instances, the benefit should not be spread over the lives of the remaining work force but instead recognised in the periods in which the benefits are received. They should, in general, not be anticipated in the sense of taking credit immediately the facts are known, but should be recognised on a year-by-year basis. But to this rule there is an exception, where the redundancies are related to a sale or termination of an operation, for in such a case FRS 3 *Reporting Financial Performance* must be followed. (SSAP 24, which of course predates FRS 3, refers to SSAP 6 in this context.) It may not be appropriate to defer recognition of a pension cost or credit, because FRS 3 requires that provisions relating to the sale or termination of an operation be made after taking into account future profits of the operation or on the disposal of the assets.

Changes in actuarial assumptions and methods and retroactive changes to the scheme

The effect of changes in the assumptions and methods used by the actuary should be treated in the same way as experience deficits and surpluses – they should be spread over the period of the expected remaining service lives of the current employees.

The same rule should be applied if there are retroactive changes in benefits and membership. Such changes, often called past service costs, may give improved benefits, e.g. increasing the proportion of final salary which will be paid as pension, or give employees credit for periods of service before they joined the scheme.

In some cases a surplus on a pension fund may be used to improve benefits and if, as a result, a provision that the company had made in its own accounts is no longer necessary, that provision should be released over the estimated remaining service life of the current employees.

Discretionary pension increases

A pension scheme might allow for pension increases within its rules, in which case they will be taken into account in the actuarial calculations, as should any increases required by legislation.

Other increases are discretionary on the part of the employer, whether paid direct or through the pension scheme. If such increases are granted on a regular basis, SSAP 24 states that the preferred treatment is to allow for them in the actuarial calculations. If this is not done, the full capital value of the increase should be provided in the year in which it is granted, not in the years in which it is paid, to the extent to which the increase is not covered by the surplus on the fund.

The same procedure should be followed in the case of an *ex gratia* pension granted to an employee on retirement, such as a long-serving member of staff who for some reason has not been a member of the scheme. Thus, for example, if it is estimated that the amount which would need to be invested to produce the desired pension at the estimated rates of interest is £400 000 then that amount should be charged to the profit and loss account in the year of retirement.

A non-recurring increase, which is granted for one period only with no expectation of repetition, should be charged to the period in which it is paid to the extent that it is not covered by a surplus.

The following example serves as a summary of the above and illustrates the variations between the contributions made to the scheme and the costs of pensions charged to the profit and loss account.

Example 10.1

Slick Limited is a small company that established a non-contributory defined benefit funded scheme in 20X1. Its year end is 31 December.

For arithmetical simplicity we will assume that the annual pensionable salary bill was £1 000 000 before the reorganisation referred to in paragraph C below and £600 000 thereafter.

(A) On the inception of the fund in 20X1 the actuary estimated that a contribution rate of 20 per cent on pensionable salaries would be required.

20X1–20X3

The charge to the profit and loss account will equal the contribution paid to the fund in each year, that is 20 per cent of £1 000 000 = £200 000.

(B) At the first triennial actuarial valuation in 20X4 the regular cost was estimated to be 21 per cent. There was at that stage an experience deficit of £75 000 which was paid into the fund by the employer in 20X4. The average remaining service life of the employees at that date was 15 years.

The position for each of the years 20X4–20X6 will be as follows:

20X4	£	£
Charge to profit and loss account		
Regular cost: 21% of 1 000 000		210 000
Experience deficit spread over 15 years		
75 000 ÷ 15		5 000
Amount paid to fund		
21% of 1 000 000	210 000	
Experience deficit	75 000	
	<u>285 000</u>	<u>215 000</u>
Prepayment at 31 December 20X4		70 000
	<u>285 000</u>	<u>285 000</u>
20X5	£	£
Prepayment at 1 January 20X5	70 000	
Charge to profit and loss account – as above		215 000
Amount paid to fund – regular cost – 21% of 1 000 000	210 000	
	<u>280 000</u>	<u>215 000</u>
Prepayment at 31 December 20X5		65 000
	<u>280 000</u>	<u>280 000</u>
20X6	£	£
Prepayment at 1 January 20X6	65 000	
Charge to profit and loss account – as above		215 000
Amount paid to fund – regular cost – as above	210 000	
	<u>275 000</u>	<u>215 000</u>
Prepayment at 31 December 20X6		60 000
	<u>275 000</u>	<u>275 000</u>

- (C) The next valuation took place in 20X7, a year in which the company undertook a major reorganisation involving a substantial number of redundancies.

The surplus resulting from redundancies was estimated to be £200 000, which is to be recouped by a reduction of £50 000 in the contributions otherwise payable for each of the four years 20X7–20Y0. We shall assume that this event constitutes a ‘sale or termination’ of an operation as defined in FRS 3.

In addition there was an experience surplus of £56 000 arising from events other than the reorganisation. The remaining average service life of the employees was 14 years.

The regular cost is estimated to be 18 per cent of £600 000 and the experience surplus of £56 000 is to be deducted in arriving at the 20X8 (not 20X7) payment.

For each of the years 20X7–20X9 the accounting treatment will be as follows:

20X7	£	£	£
Prepayment at 1 January 20X7		60 000	
Charge to profit and loss account			
in respect of regular cost and			
experience deficit/surplus.			
Regular cost – 18% × 600 000	108 000		
add 20X4 experience deficit			
75 000 ÷ 15	5 000		
c/f	<u>113 000</u>	<u>60 000</u>	

20X7	£	£	£
b/f	113 000	60 000	
less 20X7 experience surplus 56 000 ÷ 14	<u>4 000</u>		109 000
Credit to profit and loss account in respect of surplus on termination		200 000	
Amount paid to fund 18% × 600 000	108 000		
Reduction in respect of surplus on termination	<u>50 000</u>	<u>58 000</u>	
		318 000	109 000
Prepayment at 31 December 20X7			<u>209 000</u>
		<u>318 000</u>	<u>318 000</u>
20X8	£	£	£
Prepayment at 1 January 20X8		209 000	
Charge to profit and loss account – as above			109 000
Amount paid to fund – as above	58 000		
less Experience surplus	<u>56 000</u>	<u>2 000</u>	
		211 000	109 000
Prepayment at 31 December 20X8			<u>102 000</u>
		<u>211 000</u>	<u>211 000</u>
20X9		£	£
Prepayment at 1 January 20X9		102 000	
Charge to profit and loss account – as above			109 000
Amount paid to fund – as 20X7		<u>58 000</u>	
		160 000	109 000
Prepayment at 31 December 20X9			<u>51 000</u>
		<u>160 000</u>	<u>160 000</u>

The above may be summarised as follows:

	<i>Profit & loss account expense</i>	<i>Cash payment</i>	<i>Balance prepayment at year end</i>
	£000	£000	£000
(A) 20X1–20X3			
20X1	200	200	–
20X2	200	200	–
20X3	200	200	–
(B) 20X4–20X6			
20X4	215	285	70
20X5	215	210	65
20X6	215	210	60
(C) 20X7–20X9			
20X7 Ordinary	109	58	209
Exceptional	(200)		
20X8	109	2	102
20X9	109	58	51

The prepayment at 31 December 20X9 may be analysed as follows:

20X4 Experience deficit $\frac{9}{15} \times \text{£}75\,000$	£ 45 000
20X7 Experience surplus $\frac{11}{14} \times \text{£}56\,000$	(44 000)
	1 000
20X7 Surplus on reorganisation $\text{£}200\,000 - \text{£}(3 \times 50\,000)$	50 000
	<u>51 000</u>

Note: The deferred tax implications have been ignored.

We have now completed our main discussion of the accounting principles underlying SSAP 24, but we will deal with a number of related issues before turning to disclosure.

Related issues

The effect of discounting

SSAP 24 points out that financial statements normally show items at their face value without discounting, but by their very nature actuarial assumptions do make allowances for interest so that future cash flows are discounted to their present values. The statement points out that the question of whether items should be discounted in financial statements is a general one and on this general issue SSAP 24 should not be regarded as establishing standard practice.

In the special case of unfunded schemes the question of discounting cannot be avoided. The annual charge for pensions in any unfunded scheme is made up of two elements: the charge for the year (which is equivalent to the contribution to a funded scheme) plus interest on the unfunded liability. In an unfunded scheme the assets to support the pension are retained within the business and the latter element represents the return on those investments.

We will return to this topic when discussing FRS 17.

Group schemes

It is common for a number of companies in a group to use a single group scheme in which it is accepted that a common contribution rate can be used, even if when calculated company by company different rates would emerge. The standard allows this practice to continue and for lesser disclosure in the case of subsidiary companies, although full details have to be provided in the financial statements of the holding company.

Foreign schemes

In principle, all pension costs should be accounted for in accordance with the standard and hence consolidation adjustments may be required in the case of overseas subsidiaries. However, where countries overseas have very different pension laws or where the cost of making the necessary actuarial calculations is excessive, the contributions to the relevant overseas scheme may be treated as the costs for the period.

Scope

The standard is not restricted to instances where employers have a legal or contractual commitment to pay pensions; it also covers cases where the employers implicitly, through their actions, provide or contribute to employees' pensions.

Disclosure requirements

The main accounting principle is fairly straightforward. Estimate the regular cost and, subject to certain exceptions, spread the cost or benefit from variations over the remaining service lives of the current employees.

Given the uncertain nature of the estimates that are involved and the length of the time period over which they have to be made, it is not surprising that the standard requires extensive disclosure of surpluses or deficiencies in respect of defined benefit schemes, just stopping short of asking for the colour of the actuary's eyes.

It would not be helpful to repeat the requirements here but they can be summarised as follows:

- (a) nature of the scheme;
- (b) accounting and funding policies;
- (c) date of last actuarial review and status of the actuary; i.e. whether or not an officer of the company;
- (d) the pension cost for the period, together with an explanation of significant changes compared with the previous period, and any provisions or prepayments included in the balance sheet;
- (e) the amount of any deficiency and action, if any, being taken in consequence;
- (f) details of the last formal valuation or review of the scheme including:
 - (i) actuarial method used and main actuarial assumptions;
 - (ii) market value of the assets;
 - (iii) level of funding expressed in percentage terms of the benefits accrued by members and comments on any material surpluses or deficiency so revealed;
- (g) details of any commitments to make additional payments and the effect of any material changes in the company's pension arrangements.

An appendix to the standard provides some useful hypothetical examples of what might be disclosed by different types of companies but, a little surprisingly, does not provide an example of an unfunded scheme.

From SSAP 24 to FRS 17

The introduction of SSAP 24 in 1988 resulted in some reduction in the range of methods used for accounting for pension costs but, given the pioneering aspects of the standard, there was a need for a reasonably early review of the lessons learnt from its implementation. The review did not, however, come quickly, for the first of the two discussion papers relating to review, *Pension costs in the employer's financial statements*, was not published until 1995. The second paper, *Aspects of accounting for pension costs*, emerged in 1998 and this was followed by FRED 20 *Retirement Benefits*, issued in October 1999. The whole process culminated in the promulgation of FRS 17 *Retirement Benefits* in November 2000.

SSAP 24 had, even when it was issued, an old-fashioned air about it. While it was, in some ways, a radical document in that it attempted to bring some order to an important aspect of financial reporting that had previously been largely unregulated, it was also backward looking in that it did not seek to ensure that an entity's assets and liabilities were properly recorded. Examples of this include the provision that pension funds assets should be valued at the actuarial rather than their market value and that actuarial surpluses and deficits should be recognised over time rather than immediately.

There has over the period since 1988, and in particular since 1995, been a move towards the view that users of financial statements are generally better served if supplied with information about the fair values of assets and liabilities.

The 1995 discussion paper set out the two alternative methods of asset valuation but the response was overwhelmingly in favour of the actuarial method, the main reasons being the volatility of market values and the impossibility of estimating the market values of the pension liability. A majority of the members of the ASB agreed with this consensus but, at the same time, the Board recognised that there is no prospect of other countries adopting the actuarial approach and hence, as part of the move to international convergence, the 1998 paper proposed the acceptance of the market value approach. This proposal was accepted by the majority of the respondents to that paper.⁶ While this seems to indicate a significant change of opinion over the three-year period, there are still considerable concerns about the greater volatility introduced by the use of the market approach.

FRS 17 *Retirement Benefits*

Actuarial methods

We will in this section concentrate on three key questions that faced the ASB when drafting FRS 17. They relate to the selection of actuarial methods.

- Should account be taken of the time value of money in determining the current service charge?
- Should account be taken of salary increases to which the employer is not yet committed?
- At what rate should the liabilities be discounted?

Should account be taken of the time value of money in determining the current service charge?

The annual cost of providing a pound of pension for an employee in her twenties is less than that of a counterpart in her fifties because a greater return will be earned on the assets transferred to the pension fund. Should this be recognised in determining the current service charge?

Two types of actuarial methods are mentioned in SSAP 24:

- accrued benefits methods;
- prospective benefits methods.

These differ in their treatment of the time value of money.

⁶ FRS 17, Appendix IV, Para. 6.

Under an accrued benefits method, each period is allocated its share of the eventual undiscounted cost of the pension. The share of each period is then discounted and this produces a lower cost the further each period is away from the date of retirement. This results in a higher cost towards the end of an employee's service life than at the beginning because the effect of discounting the cost lessens as the employee approaches retirement.

Under a prospective benefits method, the total cost including all the interest that will accrue is spread evenly over the employee's service life.

The ASB believes the financial statements should reflect the fact that the cost of providing a defined benefit pension increases the closer the employee gets to retirement and therefore requires the use of an accrued benefits method.⁷ We shall illustrate the application of an accrued benefit method in Example 10.2.

Should account be taken of salary increases to which the employer is not yet committed?

In terms of calculating the retirements benefits to which an employee is due, account should be taken of estimated salary increases to which the employer is not yet committed. In determining the percentage of salary that needs to be set aside to provide for these benefits, however, future salary increases should not be taken into account. Let us look at each in turn.

Likely benefits

The standard requires the defined benefit liability to be the best estimate of the present value of the amount that will actually be paid out.⁸ Thus, for defined benefit schemes based on final salaries the liability should be based on the expected final salary, not the current salary. The Board accepts that there might be an argument, based on FRS 12 *Provisions, Contingent Liabilities and Contingent Assets*, that because the employer has some control over the future increases in salary it does not have a present obligation relating to those increases. This argument is rejected because the Board believes that there is a present commitment to pay a pension based on final salary, and that this liability should be reflected in the financial statements. It also points out that the use of expected final salaries is consistent with IAS 19 (revised) as well as with the US FAS 87.

Basis for the contributions

The approach adopted by FRS 17 is inconsistent, although, in determining the percentage of the salary that needs to be set aside to allow for the payment of the expected benefits, only the salaries expected to be paid in the following year are taken into account, as the method specified in FRS 17 is the *projected unit method*.⁹ With this method the standard rate of contribution, the regular cost, is calculated by dividing the present value of the benefits expected to accrue in the year after the valuation (which will take into account the projected final earnings of employees) by the present value of the projected earnings of the employees in

⁷ FRS 17, Appendix IV, Para. 11. In the case of a mature pension scheme where the average age of the employees is reasonably constant the two methods will yield pretty much the same result.

⁸ FRS 17, Appendix IV, Para. 12.

⁹ FRS 17, Para. 20.

that year.¹⁰ There is an alternative actuarial approach known as the *attained age method* where the contribution rate is calculated by dividing the present value of the benefits which will accrue to the members of the scheme after the date of the valuation, as with the projected unit method, by the present value of the **total** projected earnings of the members of the scheme.

The attained age method would seem to provide a better basis of satisfying the FRS 17 objective of recognising the costs of providing retirement benefits in the accounting periods in which the benefits are earned. Unfortunately, the Board does not provide an adequate explanation of its preference for the projected unit method.

At what rate should the liabilities be discounted?

In the past, actuaries discounted liabilities in a defined pension scheme by using the estimated expected rate of return on the scheme's assets. While this approach does not seem unreasonable the Board take the view that a more realistic approach would be to use a discount rate that reflects the time value of money and the risk associated with the liability.¹¹ The point that employers could, if experiencing financial difficulties, mitigate their position by granting less than expected salary increases is made to support the view that the risk premium should be small. While the Board recognises that the risk premium will differ between schemes it requires, for the sake of both objectivity and international convergence, the use of a standard interest rate: the rate of return on a high quality corporate bond, i.e. one rated at AA or equivalent status.

Frequency of actuarial valuations

Full actuarial valuations should be undertaken by a professionally qualified actuary at least every three years but the actuary should review the most recent valuations at each balance sheet date and update them in the light of current conditions (Para. 35).

FRS 17 and the recognition of the costs of retirement benefits schemes

The nature of the costs

As we described earlier one of the major differences between SSAP 24 and FRS 17 is that the former requires certain differences to be written off over a period of time while the latter requires instant write-off, while believing that it is important to distinguish between those items that should appear in the profit and loss account and those whose place is in the statement of total recognised gains and losses. We will discuss the ASB's rationale for the approach taken by FRS 17 in a later section of the chapter dealing with the reaction to FRS 17 but we will first outline the relevant provisions of the standard.

¹⁰ The reason why the calculation is based on the figures for the following year rather than the current year is that the method was developed by actuaries to determine the regular cost for the future period.

¹¹ FRS 17, Appendix IV, Para. 21.

First the standard, at Para. 50, analyses the costs as between periodic and non-periodic costs.

Periodic costs

- the current service cost;
- the interest cost;
- the expected return on assets;
- actuarial gains and losses.

Non-periodic costs

- past service costs;
- gains and losses on settlements and curtailments.

We have already introduced the current service, or regular, cost and actuarial gains and losses so we need to discuss the other terms

The interest cost

The interest cost measures the increase in the present value of a liability due to the passage of time, or, in the words of the standard, the interest cost is the ‘expected increase during the period in the present value of the scheme liabilities because the benefits are one period closer to settlement’ (Para. 2). This is sometimes known as the unwinding of the discount.

The expected return on assets

In designing any scheme estimates need to be made of the likely return on the assets. The expected rate of return is defined as:

The average rate of return, including both income and changes in fair value but net of scheme expenses, expected over the remaining life of the related obligation on the actual assets held by the scheme. (Para. 2)

The standard makes it clear that the rate should be set by the directors, having taken advice from an actuary.¹² It does at first sight seem odd that the directors are able to select the figure that will appear in the profit and loss account although, as we will describe later, the choice is offset in the statement of total recognised gains and losses in which is found the difference between the expected and actual returns on assets. The choice of the expected rate will not therefore affect total owners’ equity but is relevant to the issue of what appears in the profit and loss account and what in the statement of total recognised gains and losses.

Past service cost

This is the increase in the present value of the scheme liabilities related to employee service in prior periods arising in the current period as a result of the introduction of, or improvement to, retirement benefits.¹³

Under SSAP 24 such costs, in the case of current employees, are spread forward over their remaining working lives but the ASB, in FRS 17, is now of the view that these costs should be recognised immediately.

¹² FRS 17, Para. 54.

¹³ FRS 17, Para. 2.

Gains and losses on settlements and curtailments

These are gains and losses that relate to changes in the scheme that are not allowed for in the actuarial assumptions. Such changes include the payment of a lump sum to a beneficiary or potential beneficiary in exchange for the payee giving up his or her rights to receive benefits or the transfer of scheme assets and liabilities relating to a group of employees leaving the scheme. The position under SSAP 24 is, as we discussed earlier, somewhat complicated. The FRS 17 approach is much more direct, immediate recognition in the profit and loss account.

Where should the costs be recognised?

Profit and loss account

The following amounts should be included within operating profit and be disclosed in the notes to the financial statements:¹⁴

- the current service cost;
- any past service cost;
- gains and losses on any settlements or curtailments.

The following should be included as part of other finance costs (or income) and should be disclosed separately in the notes to the financial statements:

- the interest cost;
- the expected return on assets.

Statement of total recognised gains and losses

The remaining items should be included within the statement of total recognised gains and losses and should also be included within the notes to the financial statements. These are:

- the difference between the actual and expected return on assets;
- experience gains and losses arising on the scheme liabilities.

It can be seen that the distinction as to what goes where does not relate to whether the item is periodic or non-periodic. Instead it depends on whether the amount can be regarded as relating to the normal operations of the business, in which case it should appear in the profit and loss account, or whether it is regarded as more akin to the revaluation of assets, and it is these 'revaluations' which are directed to the statement of total recognised gains and losses.

We will now illustrate the provisions relating to the treatments of the costs of providing a defined benefits retirement scheme in Example 10.2.

Example 10.2

A retirement benefits scheme which has only one beneficiary, Jane, was established on 1 January 20X1, four years before the date of her retirement. In order more clearly to illustrate the principles we will assume that the present value of the expected benefits payable to Jane at the date of retirement will be £120 000 and that her annual salary will be unchanged over the four years until retirement.

¹⁴ As should any past service costs, any previously unrecognised surpluses deducted from past service costs and any previously unrecognised surplus deducted from the settlement or curtailment losses: FRS 17, Para. 82.

Assume:

- The appropriate discount rate for the scheme was 10% in 20X1 and 20X2 but fell to 8% for the rest of the period.
- That the contributions to the pension fund are made at the end of each year.
- The probability of Jane not completing four years of service is so low that it may be ignored.
- That the expected rate of return on assets is 12% for the whole of the period but the fair values of the scheme's assets were as follows:

<i>Date</i>	<i>Fair value of assets</i> £
31 December 20X1	21 353
31 December 20X2	45 412
31 December 20X3	78 693
31 December 20X4	121 302

On the basis of assumption (c), 25% of the £120 000 will be assigned to each of the years.

We will first calculate the current service and interest costs.

20X1

20X1 must 'contribute' £30 000 of the £120 000 but because the contribution will be made three years before the date of retirement the current service charge will be equal to $£30\,000/1.1^3 = £22\,539$.

The present value of the obligation at the year end is £22 539 and there is no interest cost in this, the first, year.

20X2

Current service charge

$$£30\,000/1.1^2 = £24\,793$$

Interest cost

Interest on the present value of the obligation at the start of the year, 10% of £22 529 = £2254.

The present value of the obligation at 31 December 20X2 is given by:

$$£60\,000/1.1^2 = £49\,586$$

which is made up of:

	£
Present value of liability as at 1 January 20X2	22 539
Current service charge 20X2	27 047
Present value 31 December 20X2	49 586

20X3

The discount rate fell from 10% to 8% as from 1 January 20X3.

Current service charge

$$£30\,000/1.08 = £27\,778$$

Interest cost

Interest on the present value of the obligation at the start of the year, 8% of £49 586 = £3967.

The fact that the discount on liabilities fell means that the opening present value of the liability is less than is now required so there will be an actuarial loss in 20X3.

		£	£
	Required balance of the obligation at 31 December 20X3, £90 000/1.08		83 333
Less	Present value of the liability at 1 January 20X3	49 586	
	Interest cost on above, 8%	3 967	
	20X3 contribution, £30 000/1.08	27 778	81 331
	Actuarial loss		2 002

20X4**Current service charge**

£30 000

Interest cost

Interest on the present value of the obligation at the start of the year, 8% of £83 333 = £6667.

We can see how the balance of £120 000 has been built up:

	<i>Current service charge</i>	<i>Interest cost</i>	<i>Actuarial loss</i>	<i>Total</i>
	£	£	£	£
20X1	22 539			22 539
20X2	24 793	2 254		27 047
20X3	27 778	3 967	2 002	33 747
20X4	30 000	6 667		36 667
Total				120 000

The expected rate of return on assets and the differences between the expected and actual rates can be calculated as shown below. In doing so we will assume that all income from the assets has been reinvested and that the company makes its contributions to the scheme on the 31 December of each year based on the expected return of 12%.

<i>Expected and actual returns on assets for the year</i>	<i>20X1</i>	<i>20X2</i>	<i>20X3</i>	<i>20X4</i>
	£	£	£	£
Opening balance	–	21 353	45 412	78 693
12% on opening balance	–	2 562	5 449	9 443
Contributions to scheme	21 353	23 916	26 786	30 000
Assets at year end based on expected return	21 353	47 831	77 647	118 136
Actual fair value at the year end	21 353	45 412	78 693	121 302
Difference between expected and actual return	–	–2 419	+1 046	+3 166

We are now in a position to show how the amounts relating to the retirements benefits scheme will appear in the financial statements.

<i>Profit and loss account for the year</i>	<i>20X1</i>	<i>20X2</i>	<i>20X3</i>	<i>20X4</i>
	£	£	£	£
Included in operating profit				
– Current service cost	22 539	24 793	27 778	30 000
Included in other finance income				
– Expected return on pension scheme assets	–	2 562	5 449	9 443
– Interest on pension scheme liabilities	–	(2 254)	(3 967)	(6 667)
Net	–	308	1 482	2 776

<i>Statement of total recognised gains and losses for the year</i>	20X1	20X2	20X3	20X4
	£	£	£	£
Actual return less expected return on pension scheme assets	–	(2 419)	1 046	3 166
Experience gains and losses arising on the scheme liabilities	–	–	(2 002)	–
Actuarial gain recognised in STRGL	–	(2 419)	(956)	3 166

<i>Movement on the surplus or deficit for the year</i>	20X1	20X2	20X3	20X4
	£	£	£	£
Surplus in scheme at the beginning of the year		(1 186)	(4 174)	(4 640)
Movement in year				
Current service cost	(22 539)	(24 793)	(27 778)	(30 000)
Contributions	21 353	23 916	26 786	30 000
Other finance income		308	1 482	2 776
Actuarial gains		(2 419)	(956)	3 166
Surplus in scheme at the end of the year	(1 186)	(4 174)	(4 640)	1 302

In addition notes to the balance sheet would disclose the balances on the pension scheme that are given below.

Deferred taxation implications have been ignored.

<i>Balance sheets on 31 December</i>	20X1	20X2	20X3	20X4
	£	£	£	£
Fair value of pension scheme assets	21 353	45 412	78 693	121 302
Present value of scheme liabilities	22 539	49 586	83 333	120 000
Net asset/(liability)	(1 186)	(4 174)	(4 640)	1 302

Disclosure requirements

The disclosure requirements of FRS 17 are extensive and it would be best if, at this stage, we summarised them rather than seeking to reproduce them in detail. The standard itself has an appendix that provides a helpful and comprehensive example of the disclosure provisions.

An initial comment is that FRS 17 seeks to ensure that the notes to the financial statements do more than analyse the amounts appearing in the statements but provide far more information about the basis underlying the key assumptions made in preparing the financial statements.

Defined benefits schemes

We have already discussed the disclosure requirements relating to the profit and loss account, statement of total recognised gains and losses and balance sheet so, at this stage, we will focus on those aspects that are to be included in the notes to the financial statements.

The information that has to be disclosed includes the following.

Details of the scheme

- the nature of the scheme, i.e. that it is a defined benefit scheme;
- the date of the most recent full actuarial valuation and, if it be the case, a statement that the actuary is an officer or employee of the entity;
- the contribution for the current period and any agreed future contributions;
- for closed schemes, and for those in which the age profile of the active membership is rising significantly, the fact that under the projected unit method the current service cost will increase as the members of the scheme approach retirement.

Assumptions

The major assumptions employed in the valuation of the pension scheme must be disclosed. These include assumptions about the rates:

- of inflation
- of salary increases
- of pension increases
- used to discount the scheme's liabilities

Assets

The fair value of the assets held by the scheme at the beginning and end of the period must be disclosed, together with the expected return for the current and following period. Separate amounts should be provided for equities, bonds and other investments.

History of amounts recognised in the statement of total recognised gains and losses

The following need to be disclosed for the current period and in respect of the previous four periods:

- the difference between the expected and actual return on assets expressed as an amount and as a percentage of the scheme assets at the balance sheet date;
- the experience gains and losses arising on the scheme liabilities expressed as an amount and as a percentage of the present value of the scheme liabilities at the balance sheet date;
- the total actuarial gain or loss expressed as an amount and as a percentage of the present value of the scheme liabilities at the balance sheet date.

Other notes

- the movement in the surplus or deficit during the year;
- an analysis of the reserves to show the amount relating to the defined benefit asset or liability, net of the related deferred tax.

The rationale underpinning FRS 17

The major differences between SSAP 24 and FRS 17 are in the valuation of assets and the treatment of actuarial differences. As we explain in many places in the book, the choice of the fair value basis of valuation is in line with the development of the Board's thinking in a number of areas of financial reporting so, at this stage, we will concentrate on the rationale

underpinning the view that all differences should be recognised immediately and not written off over a period.

The main argument for ‘recognising’ rather than ‘spreading’ is that this ensures that the balance sheet shows either the surplus or deficit on the pension scheme based on the latest valuations and as such complies more closely with the Board’s definitions of assets and liabilities. The Board also points out that the figures are ‘transparent and easy to understand’ and that the FRS 17 approach does not have to rely, as did SSAP 24, on complex and arbitrary rules for spreading gains and losses.¹⁵

Among the main concerns expressed in response to the Exposure Draft that preceded FRS17, was the effect of the far greater volatility in the pension costs that results from the combination of the use of market values and the ending of spreading. The Board’s response was to affirm its belief that users of financial statements are sufficiently sophisticated to view figures in a proper context. Since we are here touching on matters that impact on the Board’s overall approach it is perhaps useful to quote their arguments at some length.

It is important to remember that the amounts reported in the statement of total recognised gains and losses *in any one period* have relatively little significance and should not necessarily cause concern. What matters is *the pattern that emerges over a number of years*. For example, if a substantial actuarial loss arises in one year, but then reverses over the next few years, there may well be no impact on future cash flows. If, on the other hand, the loss does not reverse and perhaps even is repeated, then it is more likely that additional contributions to the pension scheme will be required. Repeated gains or losses may also imply that pension costs in the future will be lower or higher as experience causes the actuary to change his assumptions. These trends will be highlighted by the disclosure of a five-year history of actuarial gains and losses.¹⁶

The Board also dealt with the concern that, as the standard does not allow for recycling, not all expenditure would flow through the profit and loss account. The hope here is that users will understand the significance of the distinction between the profit and loss account and the statement of total recognised gains and losses and will pay due attention to the messages provided by both statements.

The reaction to, and implementation of, FRS 17

It was perhaps unfortunate that FRS 17 came along at about the same time as a worldwide fall in share prices and fairly soon after changes in UK tax laws that removed benefits that had formerly been available to pension schemes. The combination of these factors was such that, even without FRS 17, many pension schemes reported a deficit, a position that would have been exacerbated by the removal of the ‘helpful’ spreading provisions in SSAP 24. As a consequence, a number of employers have, in recent years, closed their defined benefits retirement schemes to new employees and, sometimes, also to existing employees – replacing them with defined contribution schemes. While some of the blame for this was directed at FRS 17 it may be argued that this was criticism of the messenger which should more properly be directed at the underlying causes of the increasing cost of defined benefit schemes, namely the fall in the market values of shares and bonds, the withdrawal of tax benefits and increases in the life expectancy of pensioners.

¹⁵ FRS 17, Appendix IV, ‘The development of the FRS’, Para. 40.

¹⁶ FRS 17, Appendix IV, Para. 42.

Considerable pressure was put on the ASB not to implement FRS 17 or to do so over an extended period of time. The Board resisted these pressures but has, however, decided to defer the full implementation of FRS 17 for another reason. This was the decision by the IASB to review IAS 19 (revised) *Employee Benefits* and the associated risk that entities that had adopted the provisions of FRS 17 would very quickly have to change again in order to comply with a new international standard. Thus, in July 2002, the ASB issued an unnumbered exposure draft entitled *Amendment to FRS 17* setting out its proposals for dealing with the interim period while we await the issue of the international standard.

In this exposure draft, the Board reiterates its concerns about the weaknesses of SSAP 24 and, despite the problems that this would create for comparability, urges the voluntary adoption of all the provisions of FRS 17. It proposes, in any case, the full adoption of FRS 17 in respect of financial statements for accounting periods ending on or after 22 June 2005, and that the provisions of the standard relating to the disclosure of information in the notes to the financial statements should be implemented on the following timetable.¹⁷

<i>Periods ending on or after</i>	<i>Provisions</i>
22 June 2001	Details of the scheme Assumptions Fair values and expected returns on assets Movement of the surplus
22 June 2002	The information relating to the performance statements Information relating to the actuarial loss or gain for the current period only

Compliance with the international standard

The provisions of FRS 17 and IAS 19 (revised) are consistent in most respects but there is a major difference in the treatment of actuarial losses or gains. In contrast to FRS 17, IAS19 (revised):

- requires actuarial losses and gains to appear in the profit and loss account;
- allows gains or losses that do not exceed 10 per cent of the greater of the gross assets or gross liabilities of the scheme not to be recognised;
- allows gains or losses to be spread forward over any period up to the expected average remaining working lives of the employees participating in the scheme.

There is also a presentational difference in that under IAS 19 (revised) the items that FRS 17 would direct to the statement of total recognised gains and losses are recognised in the Income Statement.

The ASB is confident that its chosen approach is superior to that set out in IAS 19 (revised) but we must await the publication of an international exposure draft to learn whether the IASB is of the same mind.

¹⁷ *Amendment to FRS 17*, Para. 1. The draft makes a number of more detailed proposals on the timetable for the publication of comparative figures that we have not included in the above.

Summary

We have, in this chapter, described the main forms of pension or retirement benefit schemes that are found in the UK and described the main issues relating to their treatment in financial statements. We traced the history of regulation in this area, which commenced with the issue of SSAP 24 in 1988. Although this standard is still in force the ASB is strongly of the view that it suffers from serious weaknesses, especially in the valuation of pension scheme assets and the treatment of actuarial gains and losses. We have explained that the Board favours the use of fair values to measure the assets and the immediate recognition of actuarial gains and losses. We have explained that this view is not shared by all, as there are serious concerns about the increased volatility in financial statements that the ASB's replacement standard, FRS 17, will undoubtedly introduce.

As with many other topics, accounting for retirement benefits is tied up with the international convergence programme and we have described how the provisions of FRS17 are being introduced gradually in the hope that a new international accounting standard, based on the same principles as the UK standard, will emerge before 2005, the target date for the full implementation of FRS 17.

Recommended reading

Excellent up-to-date and detailed reading on the subject matter of this chapter is provided by the most recent edition of:

UK and International GAAP, Butterworths Tolley, London. At the time of writing, the most recent edition is the 7th, 2001. A. Wilson, M. Davies, M. Curtis and G. Wilkinson-Riddle (eds), Ernst & Young. The relevant chapter is 23, 'Retirement benefits'.

More specialised reading includes the following:

P.G.C. Carne and P.P.E. Ogwuazor, 'Accounting for pension costs', *Accountants Digest*, No. 237, ICAEW, London, Winter 1989/90.

T. Sienkiewicz and D. Campbell, *Accounting for Pension Costs*, Tolleys, Croydon, 1990.

Staple Inn Actuarial Society, *A Users' Guide to FRS 17*, Staple Inn Actuarial Society, London, 2001.

Annual surveys of the ways in which companies treat retirement benefits in their financial statements are produced by Lane Clark and Peacock. The most recent edition was published by Tolleys, Croydon 2003.

Questions

- 10.1** (a) Identify and explain the main accounting issues in SSAP 24, Accounting for pension costs, for defined contribution schemes and defined benefit schemes. (7 marks)
- (b) Provide a numerical illustration of accounting for a pension scheme surplus. You should explain the meaning of the resulting profit and loss account and balance sheet amounts, making appropriate reference to relevant accounting concepts and principles. (8 marks)

ICAEW, *Financial Reporting*, December 2000

(15 marks)

10.2 Diverse plc has established a defined benefit pension scheme for all the company's full-time employees. The scheme receives contributions from the company and the participating employees. The scheme was originally established on 31 December 1991 and was actuarially valued at 31 December 1994. The scheme showed a deficit of £6 million. This deficit was caused by a reassessment of the original actuarial assumptions (an experience deficiency). No change to contribution levels was made as a result of the 1994 valuation. However, the deficit was funded by a one-off lump sum payment of £6 million into the scheme on 30 June 1995. The result of the 1994 valuation was not available when the 1994 financial statements of Diverse plc were approved by the Directors.

The scheme was actuarially valued for the second time at 31 December 1997. The results of this second valuation showed a surplus of £4 million. The actuaries advised that £3 million of this surplus was caused by a significant reduction in the number of scheme members because of a redundancy programme. The result of the 1997 valuation was not available when the 1997 financial statements of Diverse plc were approved by the Directors. No change was made to the normal contribution levels for 1998. Total contributions payable to the scheme for 1998 were £5 million. The average remaining service lives of participating employees in the scheme was estimated to be 20 years at the date of inception of the scheme. This estimate is reckoned to continue to be applicable in the medium term as older employees retire and younger employees join.

Requirements

- (a) Explain the principles outlined in SSAP 24 – *Accounting for Pension Costs*, under which the profit and loss account charge for pension costs is determined in the financial statements of employing companies. You should indicate why the computation of the pension cost is more complicated in the case of defined benefit schemes than defined contribution schemes. (7 marks)
- (b) Compute the charge in the profit and loss account of Diverse plc in respect of the pension costs for the year to 31 December 1998. (6 marks)
- (c) Compute the pension asset or liability which would appear in the balance sheet of Diverse plc at 31 December 1998 and explain how it would be disclosed on the balance sheet. (7 marks)

CIMA, Financial Reporting, November 1999

(20 marks)

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

C Ltd makes payments into the pension scheme on a monthly basis as follows:

- Employer's contribution of 12% of the gross salaries of the participating employees.
- Employees' contribution (via deduction from salary) of 6% of gross salary.
- Payments are made on the twentieth day of the month following payment of the salary.

C Ltd makes up financial statements to 31 December each year. On 30 June 1995 the scheme was subject to its first actuarial valuation. The valuation revealed a deficit of £2.4 million. The deficit was primarily caused by a change in the assumptions made by the actuary since the scheme was originally established. The deficit was extinguished by a one-off lump sum payment of £2.4 million into the scheme by C Ltd on 30 September 1995. The annual salaries of the scheme members for the year ended 31 December 1995 totalled £15 million, accruing evenly throughout the year.

Requirements

- (a) Write a memorandum to your Board of Directors which explains:
- the difference between a defined contribution scheme and a defined benefit scheme,
 - the accounting objective set out in SSAP 24 – *Accounting for Pension Costs* – concerning the determination of the charge for pension costs in the profit and loss account of the employing company,
 - why the accounting objective is more difficult to satisfy for an employer with a defined benefit scheme. (12 marks)
- (b) Determine the total charge in the profit and loss account for pensions (EXCLUDING amounts deducted from employees' gross salaries) AND any balance sheet amounts in respect of pensions, explaining clearly where exactly on the balance sheet the amounts would be included.

Assume the provisions of SSAP 24 are followed by C Ltd.

You ascertain that at 30 June 1995 the average remaining service lives of the employees who were members of the pension scheme at that date was 24 years. (8 marks)

Ignore deferred taxation.

CIMA, Financial Reporting, May 1996 (20 marks)

- 10.4** Court plc has a defined benefits pension scheme for all its employees. Based on actuarial advice the company has previously made contributions of £2 million per annum to the pension fund, being 10% of pensionable earnings. The average remaining service lives of the company's existing employees is ten years and pensionable earnings will continue at their present level.

An actuarial valuation of the fund as at 1 January 1991 has revealed a surplus of £3 million (i.e. the actuarial value of the pension fund's assets exceeds the actuarial value of the liabilities). The surplus has arisen solely because the investment performance of the pension fund has been better than anticipated. The actuary has suggested to the company the following funding options:

- (a) Reduce contributions from 10% to 7.5% for the next ten years; or
- (b) Have a one year pension holiday and reduce contributions to 9% in the following nine years; or
- (c) Receive a refund of £3 million now and retain the 10% contribution.

All of these options can be assumed to comply with the requirements of the Taxes Acts (including Finance Act 1986) concerning pension fund surpluses.

In advance of a board meeting, the finance director of Court plc wishes to consider the impact of the various options on the accounts of the company and has asked you to prepare appropriate analyses building up to the average annual profit and loss account charge in accordance with SSAP 24 under each option for the next ten years. Also for each option the finance director wishes to know the balance sheet effect, if any.

Requirements

Note: In parts (i) and (ii), ignore taxation and the interest effect in respect of pension contributions advanced or deferred.

- (i) Calculate the average annual charge to the profit and loss account of Court plc in respect of pension costs for the ten years commencing 1 January 1991 under each of the above options (a), (b) and (c).

For each option, (a), (b) and (c), detail the balance sheet effects of accounting for pension costs. (6 marks)

- (ii) Assume that Court plc follows option (b) above with effect from 1 January 1991 and that a further actuarial valuation as at 1 January 1996 leads the actuary to recommend reducing the pension contribution to 8% for 1996 only (with continuing contributions at 9%); under these assumptions calculate the profit and loss account charge for pension costs in each of the fifteen years commencing 1 January 1991, and the balance sheet provision at the end of each of those fifteen years. The average remaining service lives of existing employees can be assumed to remain at ten years. (6 marks)
- (iii) Set out, in note form, the practical accounting and presentational considerations, including taxation, which you would recommend the board of directors to take into account when deciding on an appropriate course of action in relation to the pension fund surplus as at 1 January 1991. (6 marks)
- ICAEW, *Financial Accounting 2, December 1991* (18 marks)

- 10.5** (a) Accounting for retirement benefits remains one of the most challenging areas in financial reporting. The values being reported are significant, and the estimation of these values is complex and subjective. Standard setters and preparers of financial statements find it difficult to achieve a measure of consensus on the appropriate way to deal with the assets and costs involved. SSAP 24 'Accounting for Pension Costs' focused on the profit and loss account, viewing retirement benefits as an operating expense. However, FRS 17 'Retirement Benefits' concentrates on the balance sheet and the valuation of the pension fund. The philosophy and rationale of the two statements are fundamentally opposed.

Required

- (i) Describe four key issues in the determination of the method of accounting for retirement benefits in respect of defined benefit plans; (6 marks)
- (ii) Discuss how FRS 17 'Retirement Benefits' deals with these key issues and to what extent it provides solutions to the problems of accounting for retirement benefits. (8 marks)
- (b) A, a public limited company, operates a defined benefit pension scheme. A full actuarial valuation by an independent actuary revealed that the value of the pension liability at 31 May 2000 was £1500 million. This was updated to 31 May 2001 by the actuary and the value of the pension liability at that date was £2000 million. The pension scheme assets comprised mainly UK bonds and equities and the market value of these assets was as follows:

	<i>31 May 2000</i>	<i>31 May 2001</i>
	£m	£m
Fixed interest and index linked bonds (UK)	380	600
Equities (UK)	1300	1900
Other investments	290	450
	<u>1970</u>	<u>2950</u>

The pension scheme had been altered during the year with improved benefits arising for the employees and this alteration had been taken into account by the actuaries. The increase in the actuarial liability in respect of employee service in prior periods was £25 million (past service cost). The increase in the actuarial liability resulting from employee service in the current period was £70 million (current service cost).

The company had paid contributions of £60 million to the scheme during the period. The company expects its return on the pension scheme assets at 31 May 2001 to be £295 million and the interest on pension liabilities to be £230 million.

The company anticipates that a deferred tax liability will arise on the surplus in the scheme. Assume Corporation Tax is at a rate of 30 per cent.

Required

- (i) Show the amount which will be shown as the net pension asset/pension reserve in the balance sheet of A plc as at 31 May 2001 under FRS 17, 'Retirement Benefits' (comparative figures are not required). (4 marks)
- (ii) Show a reconciliation of the movement in the pension surplus during the year stating those amounts which would be charged to operating profit and the amounts which would be recognised in the Statement of Total Recognised Gains and Losses (STRGL), utilising FRS 17, 'Retirement Benefits'. (7 marks)

ACCA, Financial Reporting Environment (UK Stream), June 2001 (25 marks)