CCFPS Actuarial Valuation 2002

- Introduction
- Background
- Legislative Developments
- Intervaluation Period
- Funding Objective
- Valuation Method and Assumptions
- Financial Condition of the Scheme
- Contribution Rate
- Accounting Requirements

Introduction

This report on the actuarial valuation of the Cambridge Colleges Federated Pension Scheme ("the Scheme") as at 31 March 2002 has been prepared as required by Clause 15(b) of the Deed dated 21 July 1989. This report is addressed to the Trustee of the Scheme. The previous valuation was carried out as at 31 March 1999.

The main purposes of the report are:

- to review the financial condition of the Scheme as at the valuation date
- for funding purposes
- for discontinuance purposes
- for the purpose of the statutory test for surplus required under Schedule 22 of the Income and Corporation Taxes Act 1988
- to set out the level of the Colleges contribution for the period until the next valuation
- to satisfy the statutory requirements concerning disclosure of information and actuarial certification

This report has been prepared in accordance with the professional guidelines for actuarial reports (Guidance Note 9) issued by the Institute and Faculty of Actuaries which is as at the date of signature of the report.

The highlights of the report are as follows:

- The valuation shows there is a deficit of £3,575,994 of the actuarial value of the assets compared with the past service liabilities calculated on the basis used for funding the Scheme and based on projected earnings. This represents a funding level of 94%.
- A separate valuation has been carried out on the Minimum Funding Requirement (MFR) assumptions. The Scheme is currently 101% funded on the MFR assumptions. It is our understanding that the MFR regulations relate to each College individually and not to the Scheme as a whole.
- In order to comply with the Minimum Funding Requirement introduced in the Pensions Act 1995, the Colleges will pay contribution rates shown in Table 5 of this report, until at least the next valuation, due as at 31 March 2005. These contribution rates have been determined using the valuation assumptions made for the MFR valuation.

Background

There are 25 participating Colleges in the Scheme. 19 of the Colleges are contracted out of the State Second Pension (S2P) using the Reference Scheme Test.

The Scheme has been approved by the Inland Revenue Savings, Pensions, Share Scheme Office (formerly the Pension Schemes Office) under Chapter I Part XIV of the Income & Corporation Taxes Act 1988.

Benefits

The benefits valued are those defined in the Trust Deed and Rules of the Scheme and in the membership handbook effective as at the valuation date, but taking into account overriding legislative changes in force at that date. A summary of the Scheme's benefits as at the valuation date is set out in Table 1.

Members may pay Additional Voluntary Contributions (AVC's) to increase benefits payable from the Scheme. Liabilities and assets shown in this report include the appropriate allowance for AVC's.

Membership Data

Summaries of the membership data used for the valuation are given in Table 2. The membership data has been reviewed for reasonableness and completeness.

Assets

The Actuarial Value of the Assets has been taken as the market value of the assets.

Legislative Developments

Equal Treatment

In February 2001 the House of Lords handed down their judgement on the admission of part-timers, who had previously been excluded from pension schemes as a result of their part-time status. This confirmed the position of the European Court of Justice that claims should be made during the relevant period of employment or within 6 months of the termination of that contract of employment. Their Lordships also confirmed that retrospective service could be granted back to 8 April 1976, the date of the Defrenne Judgement or such later date as the period of employment commenced. No allowance has been made for any additional liabilities that may arise as a result of this Ruling, other than those notified to us by Colleges.

On receipt of a transfer value, the Scheme has responsibility to ensure that the amount of the transfer value complies with EC rulings on sex equality. Any shortfall in the benefit provided by the transfer value because the transferring scheme had not equalised (for post 17 May 1990 service) would have to be made good by the Scheme. No allowance has been made for any additional liabilities that may arise as a result of this Ruling.

Intervaluation Period

The previous valuation of the Scheme was carried out as at 31 March 1999. The actuarial method used then to determine the contribution rate was the Projected Unit Method. The main actuarial assumptions (i.e. rate of interest and rate of salary increases) have been changed as follows:

	31 March 2002	**31 March 1999**
Rate of interest	7% pa compound	9% pa compound
Rate of salary increases	5% pa compound	7% pa compound
Rate of increase in pensions in payment		
GMP earned for service between 6 April 1988 and 5 April 1997	2.75% pa compound	3% pa compound
Pension in excess of GMP	4% pa compound	6% pa compound
Rate of mortality		
Before retirement	AM92 for males and AF92 for females	A67/70 table rated down 3 years for males and 7 years for females
After retirement	PMA92C20 for males and PFA92C20 for females	PA90 table, rated down 2 years

During the period 31 March 1999 to 31 March 2002, the return on the market value of the assets has been, on average, 1.8% pa. This figure compares with 7% pa assumed at this valuation.

During the intervaluation period 22 of the Colleges have removed the offset equal to the Basic State Pension from the definition of Contribution Pay in respect of Pensionable Service on or after the date of removal.

Funding Objective

The funding objective adopted for the Scheme is that the value of the assets should at least be equal to the value of the liability, as measured on the Minimum Funding Requirement assumptions, within the next 10 year period.

Whilst the Actuary is free to choose the assumptions to use in an actuarial valuation legislation has effectively imposed a maximum and minimum amount of assets a scheme may hold. If the scheme goes beyond those limits then action needs to be taken to bring the scheme back to within those limits.

Looking at the maximum limit first, the Finance Act 1986 introduced the need for an actuary to value the assets and liabilities on a set of assumptions laid down by the Government Actuary. This has become known as the "statutory surplus" test. So long as the assets do not exceed 105% of

the liabilities no action is required. The assumptions are such that the vast majority of schemes would satisfy this test.

The Minimum Funding Requirement (MFR) was introduced in the Pensions Act 1995. The intention is that schemes are to maintain assets at a level at least equal to 100% of the liabilities. The employer is required to make good any deficiency over a specified period of time. The assumptions to be used in the calculations have been prescribed and are not the same as those to be used for the statutory surplus test.

Valuation Method and Assumptions

The valuation methods used to determine assets, liabilities and contribution rates are described below and are, in my opinion, compatible. The valuation assumptions are given in Table 4. The key assumption, i.e. those to which the contribution rate is most sensitive, are the economic assumptions. The Colleges' contribution rates were determined on the Projected Unit Method.

Past Service Liability

This is defined as the actuarial present value of all benefits prospectively payable in respect of members' service prior to the valuation date:

- for active members the benefits are based on Pensionable Service up to the valuation date and Final Pensionable Salary estimated at Normal Pension Date or earlier death
- for deferred pensioners (i.e. members who have left pensionable service prior to the valuation date with entitlement to deferred benefits) the benefits are the deferred pensions payable on retirement or earlier death
- for pensioners the benefits valued are the pensions currently in payment.

Future Service Cost

This is defined as the actuarial present value of benefits accruing in the year following the valuation date in respect of all active members, based on Final Pensionable Salary estimated at Normal Pension Date or earlier death. There is no Future Service Cost for either deferred pensioners or pensioners.

In all cases, the above liabilities include amounts in respect of benefits contingently payable to members' dependants and increases in pensions at the rate guaranteed in the rules of the Scheme.

Actuarial Value of the Assets

Table 3 shows that the Actuarial Value of the Assets at the valuation date has been taken as the market value of £58,087,341.

Surplus Adjustment

If the Actuarial Value of the Assets exceeds the Past Service Liability, the difference is termed a surplus - this will be dealt with by a Surplus Adjustment which will commonly be a reduction (or increase if there is a deficiency) in the College contribution rate for an agreed period.

Projected Unit Method

Under the Projected Unit Method the contribution rate is determined as:

• the Future Service Cost, until the next valuation date
less
• the members' contribution
adjusted by
• the Surplus/Deficiency Adjustment for an agreed period.

College Contribution Rates

The Future Service Cost is expressed as a percentage of active members' Contribution Pay and gives a preliminary College contribution rate. The average Future Service Cost for all the Colleges is shown in Section H.

The Surplus (or Deficiency if applicable) Adjustment is then applied to obtain the new College contribution rate.

Financial Condition of the Scheme

Funding Level and Discontinuance Level

The Funding Level is the ratio of the Market Value of the Scheme's assets to the Scheme's Past Service Liability. The Discontinuance Level is the ratio of the Market Value of the Scheme's assets to the Scheme's liabilities calculated according to the Minimum Funding Requirement.

The Funding Level of the Scheme at the valuation date is 94%. The Discontinuance Level of the Scheme at the valuation date is 101%. These have been derived as follows:

Past service (service to 31 March 2002)		**Basis 1 (Funding)**	**Basis 2 (MFR)**
Value of Past Service Liability	[a]	£61,663,335	£57,622,600
Actuarial Value of Assets	[b]	£58,087,341	£58,087,341
Surplus/(Deficiency)	[b]−[a]	(£3,575,994)	£464,741
Funding Level	[b]/[a]×100%	94%	101%

No attempt has been made to place a value on the cost of buying deferred annuities with an insurance company if the Scheme were to wind up.

Statutory Surplus Test

The Inland Revenue requires that the financial condition of the Scheme is determined in accordance with guidelines laid down by the Government Actuary to establish the level of statutory surplus, if any. These guidelines require the use of the same method of valuing the liabilities as used in the main valuation, but using assumptions that result in higher liabilities. The prescribed method and assumptions for valuing the assets results in a value lower than the Market Value of the Assets.

If the ratio of the value of the assets to the value of the liabilities using the Government Actuary's basis is less than 105%, no action is required. I can confirm that the ratio is less than 105% for the Scheme at the valuation date.

A statement to this effect is made in Certificate II at the end of this report.

Contribution Rate

College Contribution Rates

Ignoring the surplus disclosed by the valuation, the average College contribution rate required to fund the future service liabilities of Scheme members is 13.51% of Contribution Pay, measured on the MFR assumptions.

When allowance is further made for existing surpluses or deficiencies, the average new College contribution rate is 13.26% of Contribution Pay, again measured on the MFR assumptions.

Table 5 shows the College contribution rates individually calculated. The College contribution rates include the Future Service Cost, the death in service insurance premium and the expense reserve of 4% of the liabilities. Employee contribution rates and premiums for permanent health insurance are payable in addition.

Summary

In the light of the above results, the Colleges are contributing with effect from 1 April 2003 at the rates shown in Table 5 until the next actuarial valuation, due no later than 31 March 2005.

A Schedule of Contributions will need to be agreed between the Trustees and the Employer that satisfies the prescribed requirements within eight weeks of the signing of the minimum funding valuation. If no agreement can be reached, then the Trustees must determine a Schedule of Contributions. If the MFR funding level is 100% or above, then it must be maintained at least at the 100% level. If the funding level is between 90% and 100% at the effective date, then contributions are required to ensure that the funding level reaches 100% within 10 years. If the funding level is below 90%, the Trustees have a period of 3 years to reach the 90% funding level and a period of 10 years to reach 100% funding level, whichever route generates the higher contribution rate within the first 3 years.

The rate of contributions shown on the Schedule must be certified as sufficient by the Scheme Actuary. The Schedule of Contributions must be implemented within 12 weeks of the signing of the minimum funding valuation.

Please note that Colleges can continue to fund using a method and actuarial assumptions which will give funding levels and contribution rates in excess of the minimum MFR equivalents.

Accounting Requirements

It may be necessary to determine pension costs to be charged to profit in respect of UK corporate accounts under the accounting standard FRS17. We understand that it is not necessary to determine pension costs in respect of US corporate accounts under the accounting standard FAS 87.

These accounting issues are the subject of discussions and reports separate from that governing the determination of a funding strategy, and are specifically not included within this report. Such information can be provided, if requested.

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