INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

04 May 2020 (am)

Subject SA4 – Pensions and Other Benefits Specialist Advanced

Time allowed: Three hours and fifteen minutes

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.

1 A large defined benefit pension scheme is about to undertake a funding valuation. Since the previous valuation the scheme has completed a partial pensioner buy-in as part of a planned de-risking of the scheme. The buy-in has secured around 50% of the scheme's current pensioner liabilities.

The trustees have asked their actuary for advice on setting the assumptions for the forthcoming funding valuation. They have asked that the advice covers the impact of the buy-in on the following areas:

- the allowance for prudence and risk
- expected investment returns after retirement
- post-retirement longevity
- the value of the assets.

(i) Set out the main points you would expect the actuary to make in their advice. [10]

Following the successful completion of the funding valuation the actuary has been asked to advise the trustees on the regular review of the scheme's cash equivalent transfer values and the scheme's factors for calculating member options.

(ii) Outline the points the actuary would advise the trustees to consider before the bases are set for each option below, commenting specifically on the impact, if any, of the buy-in:

(a) cash equivalent transfer values

(b) cash commutation at retirement

(c) divorce calculations for pensioners (which are based on values consistent with cash equivalent transfer values).

[15]

A member has recently retired and requested a valuation of their scheme benefits for divorce purposes. They have compared this figure to a cash equivalent transfer value that they received 6 months before retirement as part of the process to allow them to consider their retirement options (both values have been calculated after the bases in part (ii) above have been implemented). They have noticed that the valuation for divorce is around 15% higher than the previous cash equivalent transfer value and have asked the trustees to explain this, given that an increase may affect the allocation of assets between them and their spouse.

(iii) Explain the possible reasons for the change between the two values. [5]

[Total 30]

2 The sponsor of a large defined benefit pension scheme is considering closing that scheme to future accrual. The sponsor wishes to replace it with a scheme that allows some sharing of risk between the sponsor and the members, and is considering a collective defined contribution scheme. The sponsor has asked an actuary to provide them with actuarial advice in the following areas to assist them with their decisions.

(i) Describe what is meant by a collective defined contribution scheme. [2]

(ii) Describe the advantages and disadvantages of a collective defined contribution scheme for:

(a) members.

(b) the sponsor.

[8]

The sponsor has decided to proceed with a collective defined contribution scheme and is now looking at the detailed design of the scheme.

(iii) Discuss how the scheme might be designed and operated, with reference to the following aspects:

(a) provision of benefits

(b) preserving equity across generations of members when:

- identifying and dealing with favourable scheme experience
- adjusting benefits to address underfunding

(c) transfers into and from the scheme.

[25]
[Total 35]

3 A country is experiencing increasing demand for long-term care among its ageing population. Therefore, as part of the State's review of its pension and benefit provision, it is reviewing the long-term care benefits.

Currently, the State uses general taxation receipts to meet the cost of a minimum level of long-term care provision for individuals whose assets are below a certain threshold level. The cost of any long-term care provision in excess of this is met by the individual.

The State wishes to increase the minimum level of long-term care it meets the cost of for individuals, and to ensure that this level of care is provided regardless of an individual's assets. However, it also wishes to minimise the additional costs to taxpayers associated with such an increase. The State has asked its in-house actuary to advise on the most appropriate funding method to adopt for this benefit going forward.

(i) Define the two funding methods:

(a) Pay as you go

(b) Terminal Funding.

[2]

(ii) Describe the advantages and disadvantages of each method in part (i) for funding the new long-term care benefit. [5]

The State is also considering the following sources of income to fund the new benefit:

(a) a levy on the retirement income of all pensioners, applied to income in excess of a specified threshold

(b) an inheritance levy applied to the assets of deceased individuals where their total value exceeds a specified threshold

(c) a levy on the profits of companies providing long-term care, applicable to profits in excess of a specified threshold

(d) a combination of (a), (b) and (c).

(iii) Outline the advantages and disadvantages of each of the four methods listed above. [14]

The State has decided to proceed with a Terminal Funding approach using a combination of the three levy methods, and to introduce the new long-term care benefit in a year's time.

The State has asked the actuary for advice on how it can calculate the size of the fund and the levies needed, and has asked them to produce a report giving the information and assumptions needed in order to perform the calculation.

(iv) List, with reasons, the information and assumptions that the actuary might include in the report. [6]

The State needs to decide if the fund is to support the costs for those already in care at the implementation date as well as those needing care in the future. It has asked the actuary to prepare a report on the implementation of the new regime with the proposed funding method. In particular, it has asked the actuary to consider:

- how the regime might be implemented in practice.
- how the short term and long term costs might be met.
- provisions for existing and future beneficiaries of long-term care.
- other relevant points.

(v) Outline the main points the actuary might include in the report. [8]

[Total 35]

END OF PAPER