CMP Upgrade 2019/20

Subject SA4

CMP Upgrade

This CMP Upgrade lists the changes to the Syllabus objectives, Core Reading and the ActEd material since last year that might realistically affect your chance of success in the exam. It is produced so that you can manually amend your 2019 CMP to make it suitable for study for the 2020 exams. It includes replacement pages and additional pages where appropriate. Alternatively, you can buy a full set of up-to-date Course Notes / CMP at a significantly reduced price if you have previously bought the full-price Course Notes / CMP in this subject. Please see our 2020 *Student Brochure* for more details.

This CMP Upgrade contains:

- all significant changes to the Syllabus objectives and Core Reading.
- additional changes to the ActEd Course Notes and Assignments that will make them suitable for study for the 2020 exams.

0 Changes to the Syllabus objectives

This section contains all the ***non-trivial*** changes to the Syllabus objectives.

There were no non-trivial changes to the Syllabus objectives for the 2020 Subject SA4 exam.

1 Changes to the Core Reading and ActEd material

This section contains all the ***non-trivial*** changes to the Core Reading and ActEd material.

Chapter 2

Page 3

The penultimate paragraph now reads:

Compulsion is applied to non-State UK pension provision as all employers are required to auto-enrol eligible employees into a scheme meeting certain minimum standards. However, individuals may choose to opt out of this provision. This is discussed further below.

Page 4

The final paragraph now reads:

The initial minimum contribution requirements were low at a combined 2% of earnings up to a threshold, of which at least 1% must be paid by employers, but increased to 5% (2% must be paid by employers) **from April 2018, and further increased from April 2019 to 8%** (3% must be paid by employers)**. There are also proposals to extend auto-enrolment to younger employees, although it will remain voluntary for the self-employed and non-workers.**

Chapter 4

Section 0.1

Section 0.1 now begins:

To improve the security of benefit promises, UK legislation exists which includes regulations that require:

This list also has an additional bullet point of:

- **A central discontinuance fund (the Pension Protection Fund) which provides a minimum level of benefits if a scheme is wound-up with insufficient assets to meet the promised benefits in full.**

Chapter 5

Some ActEd text should be inserted towards the end of Sections 3, 4.2 and 4.4:

Section 3

An updated version of the Actuaries' Code came into force in May 2019. This sets out six core principles, the five mentioned here with an additional principle of speaking up.

Section 4.2

A new version of APS X1 came into force in March 2019. This was created by the IFoA so that its requirements still relate to the version of model standard International Standard of Actuarial Practice 1 (ISAP 1) that was in force prior to the International Actuarial Association's (IAA's) amendment of ISAP 1 to incorporate the requirements of ISAP 1A.

This will avoid the automatic adoption of the changes to ISAP1 and allow the IFoA time to reflect upon what, if anything, it intends to do in terms of the model standard ISAP 1A.

Section 4.4

A new version of APS X3 came into force in April 2018. This version includes a new Section 6, concerning interpretation and application of the standard, together with some new definitions.

Section 5

The second paragraph now reads:

These include:

- *Whistleblowing and speaking up*

  Whistleblowing – a guide for actuaries **and** ***Whistleblowing – a guide for employers of actuaries*** (the latter was withdrawn in May 2019).

  Speaking up – a guide for members which became effective in May 2019.

  These leaflets are intended to help all actuaries (and their employers) understand their whistleblowing and speaking up **obligations, both professionally and legally, and to alleviate concerns that they may have about such responsibilities.**

- *Conflicts of interest*

  Conflicts of interest – a guide for actuaries (with effect from May 2019 this is now a guide for members) **and** ***Conflicts of interest – a guide for employers of actuaries***

  Conflicts of interest and actuaries – a note for pension scheme trustees

  These leaflets build on the provisions of the Actuaries' Code in relation to conflicts of interest and set out views on good practice regarding such conflicts and how they might be managed.

Chapter 12

Section 2

Section 2 now begins as follows:

Actuaries are not generally involved in assessing sponsor covenant, but it is worth understanding the process to help interpret the results.

Information about approaches to covenant assessment is given in the Core Reading for Subject **SP4.**

Subject SP4 detailed the analytical credit quality assessment techniques that are used to determine credit risk which can be adapted for assessing sponsor covenant.

Chapter 13

Section 1.3

The last sentence of the first paragraph has been removed.

Chapter 14

Section 7.2

The following has been added at the end of Section 7.2:

At the time of writing (May 2019), the guidance has been updated and the 2019 version can be found at:

https://www.thepensionsregulator.gov.uk/en/trustees/managing-dc-benefits/investment-guide-for-dc-pension-schemes-

The main sections of the updated guide are:

- the trustee board's role in investment governance
- investment decisions and your statement of investment principles
- monitoring investment governance
- designing investment arrangements (including default arrangements)
- strategy and performance monitoring and review
- market developments.

Chapter 21

Page 8

The last sentence has been removed from the first paragraph (of three paragraphs) of Core Reading towards the end of the page.

Chapter 22

Section 1

A new paragraph has been inserted after the first as follows:

These changes may include setting up new companies within the corporate group, closing other companies, and moving employees and financial assets between companies within the group.

The next paragraph now reads:

A key factor for the trustees of the pension scheme is to understand which business entities have a legal responsibility to support the scheme. This may not correspond to those companies within a business group that generate the most profit or hold the most assets **– and are therefore most able to support any pension commitments. Therefore, when considering the effect of any change to sponsoring employers, or to which companies within a corporate group hold significant assets, the trustees should consider the impact on the covenant for the scheme.**

Chapter 26

Sections 4.4 and 4.5

A new Section 4.4 has been added with the sections that follow renumbered accordingly. Section 4.5 (previously 4.4) has been updated. Replacement pages are attached.

2 Changes to the X Assignments

There have been no changes to Assignments X2, X3 and X4.

Assignment X1

The mark allocations in Questions X1.1 and X1.2 have been changed slightly.

Parts (iii) and (iv) of Question X1.2 have been made more general to require students to list factors for consideration when determining the investment and funding principles respectively. The solution has been updated accordingly. Replacement pages are attached.

Assignment X5

Part (iv) of Question X5.4 has been amended to avoid any confusion with the terminology previously used. This part now discusses payments being made in stages and not on account. There has been no change in the issues described. Replacement pages are attached.

Assignment X6

Question 6.1

The references to gilts in part (i) have been changed to government bonds. This amendment has also been made throughout the solution to this question.

Question 6.2

The marks for parts (i) and (vii) have been amended to 4 and 14 respectively.

Two final parts have been added to this question. Replacement pages are attached.

Question 6.4

These final parts for Question 6.2 were taken from Question 6.4 which has now been deleted.

3 Other tuition services

In addition to the CMP you might find the following services helpful with your study.

3.1 Study material

We also offer the following study material in Subject SA4:

- ASET (ActEd Solutions with Exam Technique) and Mini-ASET
- Mock Exam and AMP (Additional Mock Pack).

For further details on ActEd's study materials, please refer to the 2020 *Student Brochure*, which is available from the ActEd website at **www.ActEd.co.uk**.

3.2 Tutorials

We offer the following (face-to-face and/or online) tutorials in Subject SA4:

- a set of Regular Tutorials (lasting three full days)
- a Block Tutorial (lasting three full days).

For further details on ActEd's tutorials, please refer to our latest *Tuition Bulletin*, which is available from the ActEd website at **www.ActEd.co.uk**.

3.3 Marking

You can have your attempts at any of our assignments or mock exams marked by ActEd. When marking your scripts, we aim to provide specific advice to improve your chances of success in the exam and to return your scripts as quickly as possible.

For further details on ActEd's marking services, please refer to the 2020 *Student Brochure*, which is available from the ActEd website at **www.ActEd.co.uk**.

3.4 Feedback on the study material

ActEd is always pleased to get feedback from students about any aspect of our study programmes. Please let us know if you have any specific comments (*eg* about certain sections of the notes or particular questions) or general suggestions about how we can improve the study material. We will incorporate as many of your suggestions as we can when we update the course material each year.

If you have any comments on this course please send them by email to **SA4@bpp.com**.

For example:

- the expected future term will be shorter than for an ongoing scheme
- the liabilities are likely to be matched with more fixed interest and index-linked bonds than before. A lower discount rate is likely to be used due to a more cautious investment approach being taken
- a more cautious funding basis may be chosen by the trustees to reflect any reduction in the employer's ability or willingness to fund a closed scheme
- the loss of the final earnings link for active members.

4.3 Transferring the liabilities to another scheme of the same employer

This will only be an option if the employer or an owning company continues to exist and has other schemes.

The situation is then similar to that of continuation, except that any surplus or deficit arising will relate to a larger group of individuals.

The trustees of both schemes will need to agree to such a transfer and may wish to impose certain restrictions to reduce the risk that 'their' assets will be used for the benefit of others, or will be supported by funds that should be providing benefits for others.

Under this option, benefits will be paid from the new scheme and the assets will be transferred and pooled with those already existing in that scheme.

If a surplus subsequently arises from the experience of this sub-group (for example because the transfer amount was relatively high compared with the benefits being transferred), then it may be preferable to use it solely for the benefit of these members. However, such a surplus may be difficult to identify separately, if all scheme experience is pooled together. A surplus could be used by the employer to reduce future contributions or to increase the benefits of *all* members.

Similarly, any deficit would need to be corrected.

Problems arise when the funding levels of the transferring and receiving schemes are significantly different. For example:

- The discontinued scheme may have a deficit, and the receiving scheme a surplus. The trustees of the receiving scheme would be concerned if their surplus is reduced by an incoming deficit, when it may otherwise have been used for the benefit of the members in the receiving scheme.
- A surplus in the discontinued scheme might be used to restore the funding level in the receiving scheme rather than to increase the benefits of the members in the discontinued scheme. The trustees of the discontinued scheme may be concerned about such a possibility.

Valuation

The actuary may calculate the cost of the liabilities under this option by using the same valuation method and assumptions as used for funding, although as for continuation (Section 4.2) any significant changes in the liability profile, investment strategy and/or employer support after the transfer takes place should be considered.

Question

Outline the advantages of this method of securing the outstanding benefit provision.

Solution

Advantages of transferring the assets and liabilities into another (ongoing) scheme of the same employer are:

- no large scale disinvestment of funds, so costs are reduced
- no costs associated with buying a guarantee
- there is a higher probability that the benefits will be paid because the employer can make good any shortfall by an adjustment to the future contribution rate
- good experience may result in surplus funds, which the employer or members may benefit from
- expenses of running one scheme might be lower than running two separate schemes
- potential higher investment returns (and therefore lower overall cost to the sponsor) might be achieved by the pooling of assets, *eg* due to:
  - lower dealing costs and sharing of fixed management costs
  - fewer liability matching constraints
  - opportunities to invest in assets not otherwise available.

4.4 Transfer directly to the beneficiary

Individual members could be offered a lump sum in lieu of their benefits.

If this option is allowable under the legislation of the country concerned, the individual will receive a lump sum equal to the capital value of the benefits.

Such an option is not generally available in the UK, although can be made available in certain circumstances such as on the grounds of triviality or due to the serious ill-health of the member.

This gives the individual freedom as to how to use the value received. Whether the ultimate benefits are higher or lower than the discontinuance ones will depend on the individual's circumstances, investment returns, expenses, decisions made about when amounts are disinvested *etc*.

The risks and potential rewards are transferred from the scheme to the individual.

Valuation

To assess the costs of this method of provision, the actuary would simply calculate the lump sums.

4.5 Transfer to a personal pension or new employer's scheme

Individual members could be offered a transfer value in lieu of their benefit rights to transfer to a personal pension or a new employer's scheme.

UK example

In the UK, all active and deferred members have a right to a cash equivalent transfer value, but cannot be forced to take one and must transfer it into the fund of a registered pensions provider. Therefore the trustees cannot necessarily use this route to secure all the outstanding liabilities. Pensioners' benefits and the benefits in respect of any members who choose not to take up the offer will have to be dealt with by another means.

Benefits

The ultimate benefit will depend on the future experience of that individual and the assumptions used to calculate the transfer value. The benefits may therefore be greater or smaller than the discontinuance benefit.

Under this option the risks and potential rewards are transferred from the scheme to the individual, if the receiving arrangement is a personal pension or DC in nature. If the actual experience, in terms of investment, mortality, *etc*, is more / less favourable than the assumptions used to calculate the transfer value, then the individual will profit / lose out from the transfer.

If the benefits offered under the new employer's scheme are DB in nature, the risks and potential rewards are transferred from the scheme to the new employer. If the actual experience, in terms of investment, mortality, *etc*, in the receiving scheme is more / less favourable than the assumptions used to calculate the transfer value, then the receiving scheme will profit / lose out from the transfer.

Valuation

To assess the costs of this method of provision, the actuary would simply calculate transfer values using the approach determined by the trustees.

4.6 Deferred or immediate annuities

The benefit payments could be guaranteed by purchasing insurance contracts: immediate annuities for benefits already in payment or deferred annuities for others.

The key features of this method of provision are as follows:

- **Guarantees the benefits (subject to the solvency of the insurance company).**
- **A premium will be charged for the risk of providing the guarantee and also to cover the cost of servicing the funds required to write the business.**
- **The investments underlying the annuities will be constrained by the guarantee (also increasing the costs).**
- **There is a limited market of insurers willing to accept the risks associated with guaranteeing deferred annuities (including the setting up of reserves,** reinvestment risk and the risk of improvements in longevity**), so reducing the competitiveness of the premiums.**
- **There may be no insurance companies willing to accept a very large bulk purchase of annuities.**

Valuation

It can be difficult for an actuary to assess the costs of this option accurately because the assumptions that would be used by the insurance company are often unknown.

One way is to ask for a quotation, but insurance companies are not always willing to give these; also, there may be problems with gathering and transferring the data in the required format and with the time taken to obtain the quotation.

4.7 Transfer to a central discontinuance fund

This will only be an option if a central discontinuance fund exists. The benefits available will depend on a number of factors, including the design of such an arrangement, the funds available to be transferred and requirements for any other payments.

The Pension Protection Fund (PPF) is the central discontinuance fund which exists in the UK.

UK example: Transfer to the PPF

In the UK, if the assets of the scheme together with any partial debt recovered from the employer is insufficient to secure the PPF compensation benefits through the scheme, that scheme will pass through an assessment period to confirm acceptance of the scheme by the PPF.

PPF compensation benefits

The PPF compensation benefits are summarised as follows:

- Members who have reached normal pension age or who have retired early on ill health grounds will receive 100% of their pension benefits.
- Other members of the scheme will be paid 90% of their accrued pension benefits from normal pension age subject to a compensation cap. A member who retires earlier than age 65 will be subject to a lower compensation cap.
- Members can take 25% of the value of their compensation benefit as a lump sum provided they are not already entitled to a separate lump sum.
- PPF compensation will be increased by the lower of CPI and 2.5%. This increase will only apply to benefits in respect of pensionable service after 5 April 1997.
- Widow(ers) will be entitled to 50% of the amount that would have been due to the member from the PPF.
- In the event of a large claim being made against the PPF, the PPF Board has the power to change the rates of revaluation and indexation. In extreme circumstances, the Secretary of State may reduce the level of compensation.

PPF eligibility conditions

The eligibility conditions which must be met for the PPF to assume responsibility for a scheme are broadly as follows:

- **The scheme must be eligible for the PPF.**
- **The scheme must not have started to wind up before April 2005.**
- **A 'qualifying insolvency event' must have occurred in respect of the sponsoring employer.**
- **There must be no chance that the scheme can be rescued.**
- **There must be insufficient assets in the scheme to secure benefits on wind up that are at least equal to the compensation that the PPF would pay if it assumed responsibility for the scheme.**

PPF assessment period

The assessment period can be broadly summarised in five stages as follows:

1. **Section 120 notice – the PPF will be notified of the insolvency event, usually by the insolvency practitioner of the company, by way of a Section 120 notice.**
2. **Validation – the scheme's trustees pass the PPF the information necessary to determine whether the scheme is eligible. Once this information is received the PPF will make a decision within 28 days and validate the Section 120 notice.**
3. **Assessment – during this period the scheme will continue to pay benefits, but subject to the limits under the PPF level of compensation. The scheme's actuary will complete a Section 143 valuation to confirm whether the scheme can pay benefits at PPF levels or above. If the funding level is less than 100% the scheme can transfer to the PPF.**

   A Section 143 valuation must be undertaken using a prescribed set of financial and demographic assumptions as set out by the PPF Board.

   The valuation attempts to measure the value of the protected liabilities (*ie* the PPF compensation benefits) on a solvency basis.
4. **Transition – the scheme's assets and member data are reviewed and transferred and any contracts with lawyers or other adviser are terminated.**
5. **PPF scheme – the scheme will enter the PPF and members will be notified of the change. By this time they will have been receiving benefits at PPF levels since the beginning of the Assessment Period.**

The PPF can withdraw from the assessment at any time if, for example, the employer is rescued as a going concern or if the business is sold and another body takes on responsibility for the scheme.

X1.1 (i) State the purpose of the current versions of TAS 100 (the generic Technical Actuarial Standard: Principles for Technical Actuarial Work) and TAS 300 (the specific Pensions Technical Actuarial Standard). [3]

(ii) Outline the scope of these TASs. [4]

(iii) Outline the general provisions of TAS 300. [3]

(iv) Outline the provisions of TAS 300 relating specifically to scheme funding and financing. [10]

(v) List other professional guidance that may be relevant to pensions actuaries who are members of the Institute and Faculty of Actuaries. [3]

[Total 23]

X1.2 (i) Describe the role and responsibilities of a pension scheme trustee. [8]

(ii) List the main items to be found in the Trust Deed and the Scheme Rules. [6]

(iii) List the factors that may be considered when determining the scheme's investment principles. [5]

(iv) Set out the factors that may be considered when determining the scheme's funding principles. [5]

(v) List eight situations in which the trustees of a defined benefit pension scheme may be involved in exercising their discretion, other than in the appointment of advisers. [4]

(vi) Outline the advantages of having the Finance Director on the board of trustees. [2]

(vii) Describe the potential conflicts of interest that the Finance Director may face in his role as trustee, and suggest ways in which these conflicts of interest could be managed. [5]

A large defined benefit pension scheme provides a range of pensions and life assurance benefits. The employer currently contributes 20% of salaries to this scheme and members contribute at the rate of 5%.

The Human Resource (HR) director has approached you and suggested that as employees do not appreciate the pensions package, the value of this is to be notified to them as part of the annual exercise which informs them of their salary increase.

(viii) Outline the points to be included in a letter to the HR director explaining why it would not be appropriate for the value notified to employees to be the rate of contribution currently being paid by the employer to the scheme. [9]

[Total 44]

X1.3 A developed country has a substantial occupational defined benefit pension scheme market. Schemes tend to invest in a mixture of equities and bonds. The government is establishing a Central Discontinuance Fund (CDF) designed to provide a minimum level of benefits to members of underfunded defined benefit pension schemes with insolvent employers.

The benefits provided by the CDF will be:

- For members under age 65 when the sponsoring employer becomes insolvent, 90% of the scheme pension accrued to date or in payment.
- For members aged 65 or over when the sponsoring employer becomes insolvent, 100% of the scheme pension accrued to date or in payment.
- No future increases to pensions in payment are made after the sponsoring employer becomes insolvent.
- In other respects, full scheme benefits are provided.

On employer insolvency, if a scheme has insufficient assets to secure the CDF benefits with an insurance company, the scheme's assets are to be transferred to the CDF which will then provide CDF benefits to the members.

The CDF is to be funded on a buyout basis. It requires an additional source of funding when the liability of the CDF benefits provided in respect of each scheme accepted in is greater than the amount of scheme assets inherited. The government is considering two ways of financing the shortfall:

- by general taxation, or
- by an upfront-tax or "levy" payable by employers who sponsor defined benefit pension schemes.

(i) Discuss the advantages and disadvantages of each method [18]

The government decides to adopt the levy method and will introduce a levy payable by employers who sponsor defined benefit pension schemes. The levy will be calculated to reflect the financial risk that each scheme poses to the CDF. The levy will be calculated every 1 January as:

Levy = $s \times P \times (120\% \times L - A)$ where:

- s = variable scaling factor used to ensure an appropriate overall levy is collected over time
- P = probability of the sponsoring employer becoming insolvent over the next 12 months
- L = the liability of the CDF benefits
- A = the scheme's assets.

(ii) Suggest reasons why the government is using a 120% factor rather than having the levy proportional to the deficit ($L - A$). [6]

(iii) Discuss the shortcomings of this levy formula and improvements that could be made. [9]

[Total 33]

END OF PAPER

Assignment X1 Solutions

Solution X1.1

Comment

This question tests recall of the material in Chapter 5 (Professional guidance).

(i) ***Purpose of the Generic TAS 100 and Specific TAS 300***

TAS 100

The purpose of TAS 100 is to promote high quality technical actuarial work … [½]

… and to support the FRC's 'Reliability Objective' … [½]

… that 'users for whom actuarial information is created should be able to place a high degree of reliance on that information's relevance … [½]

… including the communication of any uncertainty inherent in the information'. [½]

TAS 300

The purpose of TAS 300 is to promote high quality technical actuarial work in pensions … [½]

… on matters where there is a high degree of risk to the public interest … [½]

… and supports the FRC's 'Reliability Objective'. [½]

[Maximum 3]

(ii) ***The scope of Generic TAS 100 and Specific TAS 300***

TAS 100

TAS 100 is applicable to all technical actuarial work within the geographic scope of FRS technical actuarial standards ... [½]

... that is, work performed in relation to UK operations of entities … [½]

… as well as any overseas operations which report into the UK, within the context of UK law of regulation. [½]

Technical work is defined as work which is performed for a user:

- where the use of principles and/or techniques of actuarial science is central to the work and which involves the exercise of judgement; or [½]
- which the user may reasonably regard as technical actuarial work by virtue of the manner of its presentation. [½]

Technical actuarial work is not limited to work undertaken by an actuary. [½]

TAS 300

TAS 300 is applicable to the following areas of actuarial work:

- Scheme funding and financing: work required by legislation in relation to funding, contribution requirements or benefit levels. [½]
- Factors for individual calculations: work in relation to deriving actuarial factors used in calculations which directly affect individual members' benefits and/or the financial position of a pension scheme. [½]
- Incentive exercises. [½]
- Scheme modifications: technical work concerning proposed or agreed modifications which might affect the level and/or security of members' benefits. [½]
- Bulk transfers: technical work in connection with a bulk transfer of assets and liabilities to another party (scheme or insurer). [½]

[Maximum 4]

(iii) ***The general provisions of TAS 300***

Data

Data should include legal opinions where there is uncertainty surrounding the benefits calculated. [½]

Data should include information relating to discretionary benefits if applicable. [½]

Assumptions

The mortality assumptions should be relevant to the scheme. [½]

Material assumptions (*eg* discount rate, mortality and inflation) should be explained. [½]

Any allowance in the assumptions for discretionary practices should be stated. [½]

Communications

Communications should include explanations of material uncertainties arising from legislation or documentation … [½]

… and how these have been allowed for. [½]

[Maximum 3]

(iv) ***The specific provisions of TAS 300 with regard to scheme funding and financing***

Assumptions

Communications should clarify the level of prudence and explain, where applicable, why this has changed from previous exercises. [½]

The discount rates used, and the return on assets assumed over any recovery plan, should be compared with the return expected from assets invested according to the stated investment strategy. [½]

It should be stated whether (and how) the assumptions have taken account of employer covenant. [½]

Statutory duties

Communications should contain enough information to enable the governing body to fulfil its statutory duties in relation to funding and financing. [½]

Risk assessment and future evolution of the scheme

Communications should include sufficient actuarial information to enable the governing body to understand the material risks … [½]

… in relation to cashflows, funding level, volatility of the funding level … [½]

… to support them in understanding employer covenant, investment risks … [½]

… and managing a funding and investment strategy. [½]

Reports of record

The report should contain the following:

- information required by statute
- funding objectives
- investment strategy
- approach to integrated risk management
- the impact on members had the scheme been wound up on the effective date
- an explanation of the difference between the liabilities on the technical provisions and the solvency basis
- description of how the technical provisions and solvency liabilities may develop in the future
- summary membership data including average ages
- summary of benefits
- statement of assets
- description of the methodology used

- summary of key assumptions and comparison with the previous assumptions
- experience since the previous assessment including membership changes, contributions, investment returns
- significant events since the previous assessment, *eg* benefit changes
- explanation of changes to the funding level since the previous assessment
- quantification of changes to the funding level analysed by cause
- summary of results
- contribution plan agreed, if available
- description of risks and actions taken to mitigate them
- analysis of the sensitivity of the results to changes to key assumptions

[½ a mark for each example up to a maximum of 7 marks]

Reports should be such that an informed reader can understand the financial position of the scheme. [½]

[Maximum 10]

(v) ***Other guidance that may be relevant to IFoA pensions actuaries***

Financial Reporting Council

Framework for technical actuarial standards [½]

Glossary of defined terms used in FRC technical actuarial standards [½]

Institute and Faculty of Actuaries

The Actuaries' Code [½]

GN19: Retirement Benefit Schemes – Winding-up and Scheme Asset Deficiency [½]

The Actuarial Profession Standards (APSs) for Pensions:

- APS P1: Duties and Responsibilities of Members Undertaking Work in Relation to Pension Schemes [½]
- APS X1: Applying Standards to Actuarial Work [½]
- APS X2: Review of Actuarial Work [½]
- APS X3: The Actuary as an Expert in Legal Proceedings [½]

Other non-mandatory material produced by the Institute and Faculty of Actuaries, for example on whistleblowing and conflicts of interest. [½]

[Maximum 3]

[Total 23]

Solution X1.2

Comment

Parts (i) – (iv) of this question generally test recall of the material in Chapter 2 (Key stakeholders) and Chapter 4 (Security).

Part (v) discusses the issue of trustee discretion, which is covered in Chapter 2.

Parts (vi) and (vii) focus on the trustee board and conflicts of interest; the material in Chapter 2 and Chapter 5 (Professional Guidance) will provide useful background for this question.

Finally, part (viii) requires understanding of disclosure and funding, topics which are covered in Chapter 4.

(i) ***The roles and responsibilities of a pension scheme trustee***

A trustees' role is as guardian or custodian of trust assets for the benefit of the beneficiaries … [½]

… acting prudently and conscientiously with the utmost good faith. [½]

Requirements of a trustee's role include:

- maintain confidentiality [½]
- not profit from their duties [½]
- act in the best interest of beneficiaries [½]
- strike a fair balance between the interests of different classes of beneficiary [½]
- delegate duties to appropriate specialists [½]
- obtain specialist advice … [½]

  … as due to the complexity surrounding pension schemes, trustees often seek expert advice to assist in carrying out their duties [½]
- assess the sponsor covenant. [½]

A trustee's responsibilities include:

- Investment and custody of the assets [½]
  - the trustees should document how the scheme's assets will be invested. [½]
- Financing benefits [½]
  - the trustees should document any agreement with the sponsor regarding financing. [½]
- Benefit administration, *eg* [½]
  - calculation and payment of benefits in accordance with the scheme documentation [½]
  - maintain member records [½]
  - prepare scheme accounts [½]
  - provide information required by disclosure requirements. [½]
- Exercise of discretionary powers, *eg* [½]
  - payment of death in service lump sum [½]
  - increase benefits. [½]
- Regular meetings and maintenance of proper records and minutes. [½]

Markers: give credit for any other appropriate examples

[Maximum 8]

(ii) ***The main items to be found in the Trust Deed and Scheme Rules***

Trust Deed

The date of the deed and the parties to the trust. [½]

Key powers and duties of the parties involved, including: [½]

- investment of the scheme's assets [½]
- financing [½]
- scheme amendment and termination [½]
- benefit augmentation [½]
- individual and bulk transfers (into or out of the scheme) [½]
- administration [½]
- appointment/removal of trustees and trustee protections [½]
- trustee knowledge and understanding. [½]

Scheme Rules

- eligibility [½]
- employee contributions [½]
- employer's commitment to contribute [½]
- benefits provided, including options (in detail) [½]
- application of trustee discretion to pay or augment benefits [½]
- payment of benefits. [½]

[Maximum 6]

Note to markers: several of the above items could appear in either the Trust Deed or the Rules and should be credited once only.

(iii) ***Scheme's investment principles***

The following factors may be considered when determining the scheme's investment principles:

- restrictions, such as legislation and guidance
- the minimum and maximum holdings permitted in different asset classes
- the objectives and risk appetites of the key stakeholders, particularly the trustees and sponsor
- investments currently held and those that could be held
- the extent to which liabilities should be matched by nature, term and currency
- diversification and the balance between different types of investments
- the risks relating to the current and potential investment policies and the expected returns
- the interaction between the scheme's investment policy, sponsor covenant and funding objectives
- the sponsor covenant and any cashflow requirements of the sponsor
- the funding and solvency positions
- the realisation of assets
- the maximum investment in any one company
- the maximum investment in illiquid assets
- the use of derivatives
- limits on self-investment
- the extent of any exposure to foreign currency
- corporate governance and socially responsible investment.

[½ mark each, maximum 5]

(iv) ***Scheme's funding principles***

The following matters may be considered:

- restrictions, such as legislation and guidance
- the scheme's principal funding objectives and any additional funding objectives
- the scheme's liability profile
- the interaction between the scheme's investment policy, sponsor covenant and funding objectives
- the sponsor covenant and any affordability and cashflow requirements of the sponsor
- the current and long-term investment strategy
- the circumstances in which someone other than the employer might contribute to the scheme ...

  ... or in which payments would be made out of the scheme to the employer
- whether there are any discretionary powers to increase benefits from the scheme ...

  ... and/or any beneficial options ...

  ... and the extent to which they have been taken into account in funding decisions
- the intervals at which the trustees will obtain actuarial valuations ...

  ... and the circumstances in which they may obtain additional actuarial valuations
- the current funding and solvency positions ...

  ... and the intended manner and period in which any surplus or shortfall will be eliminated.

[½ mark each, maximum 5]

(v) ***Situations when trustees may be involved in exercising their discretion***

Investment

- overall strategy [½]

Insurance

- types and extent of insurance needed [½]
- buying out benefits with an insurance company [½]

Funding

- determining the assumptions to calculate the value of the liabilities [½]
- pace at which the employer should contribute (subject to the legislative constraints) [½]

Benefits

- lump sum on death in service (who receives it) [½]
- dependants' pensions (whether people qualify) [½]
- ill-health pension (whether member qualifies and whether member recovers sufficiently for pension reduction) [½]
- ill-health lump sum (whether member qualifies for total commutation) [½]
- retirement pension:
  - whether part can be exchanged for more dependants' pensions [½]
  - whether to grant discretionary increases [½]
  - whether to allow the pension to start early [½]
- augmentations and their financing [½]

Individual transfers

- whether discretionary benefits should be included [½]
- whether incoming transfers should be accepted [½]

Bulk transfers

- what transfer amount should leave the trust [½]
- whether a transfer can take place without members' consent [½]

Winding-up

- whether the scheme should wind-up ... [½]

  ... or whether the scheme should operate as a closed scheme [½]
- what benefits are allocated to members [½]

Admission

- new employers [½]
- employees not automatically eligible [½]

[Maximum 4]

Markers: give credit for any other valid situations

(vi) ***Advantages of having the Finance Director on the trustee board***

The Finance Director (FD):

- is financially literate and can use this financial experience and acumen to help the other trustees … [½]

  … *eg* to understand the results of the valuation [½]

- may have a good knowledge of investments, which may help the trustee board when considering the investment strategy [½]

- has a very good understanding of the financial situation of and prospects for the company … [½]

  ... and may be able to use their knowledge to help inform the trustees, in particular with regard to the company covenant (assuming they can do this whilst managing any conflicts of interest) [½]

- is a member of the board of the Company and so may be able to raise the profile and issues of the pension scheme with the other members of that board … [½]

  … *eg* raise the trustees' issues and concerns [½]

[Maximum 2]

(vii) ***Potential conflicts of interest***

The FD has the same responsibilities as the other trustees, who must act prudently and in the best interests of the beneficiaries. [½]

Conflicts include:

- negotiations between the trustees and the company about contributions ... [½]

  ... The FD as a trustee should negotiate for prudent funding and high contributions / a short deficit recovery period ... [½]

  ... but in their company role may be required to reduce the employer's contributions to the scheme, so may argue, for example, for a longer deficit recovery period. [½]

- when the trustees determine the investment strategy. The trustees may wish to have a low-risk strategy to protect the security of members' benefits … [½]

  … the company may have more to gain if a higher risk strategy is followed as if investments perform well, this may lead to lower employer contributions [½]

- when taking decisions which may have cost implications for the company ... [½]

  ... *eg* deciding whether and to whom to grant discretionary benefit improvements ... [½]

  ... especially when their own benefits are being considered [½]

- when they have confidential information regarding the company that they would prefer not to disclose to some or all of the other trustees. [½]

Managing the conflicts of interest

The conflicts of interest could be managed in the following ways:

- the company, FD and trustees could take professional advice on how to identify conflicts and manage them [½]
- the FD could resign their position as a trustee [½]
- the FD could abstain from discussions and votes where they have a conflict [½]
- the FD could appoint another person in the company to negotiate on behalf of the company in any situations where the trustee and the company were in conflict. [½]

[Maximum 5]

(viii) ***Appropriateness of notifying the value as the current rate of employer contribution***

General cost

The cost of providing an individual's benefits is not necessarily the 20% of pensionable salary that the company is currently contributing. [½]

The value of the benefits accruing are reflected by the employer *plus* the employee contribution rate. [½]

The value of this pension scheme to each individual depends on the individual's characteristics and circumstances. [½]

Each individual's characteristics and circumstances must be compared with the average member in order to determine if the benefits would cost more, or less, than 25% of pensionable salary. [½]

Range of pensions benefits

Members may be accruing benefits on different benefit structures. If so, then 20% does not reflect the employer's cost with respect to each section. [½]

Important characteristics of a member that affect cost

The cost depends heavily on the member's age and gender … [½]

… all else being equal, it is more expensive to provide this type of pension to an older member than a younger one … [½]

… and to a female than a male. [½]

The benefits are more valuable for a married person, since a single person is likely to gain no benefit from a partner's pension. [½]

Important circumstances of a member that affect cost

The value of the pension scheme depends on whether a member remains in the scheme until retirement or leaves before retirement. [½]

A final salary scheme is often more valuable to members with high salary increases … [½]

… if a member's salary increases are higher than the average member (all else being equal), then the value of their year's accrual would be worth more than average. [½]

It would be difficult to allow for the actual experience of each individual. [½]

The true cost of the pension provision

The true cost of the benefit is known only once the member has died. [½]

The employer contribution rate calculated depends on the assumptions and method used … [½]

… chosen partly to reflect the desired pace of funding … [½]

… which may be prudent as the trustees wish to fund the benefits prudently and therefore lead to an over-statement of the cost of the benefits. [½]

Assumptions are unlikely to be met in practice so the contribution rate is unlikely to reflect the actual cost of providing the benefits. [½]

The employer contribution may currently be adjusted to allow for an elimination of a surplus (or deficit) in the scheme … [½]

… so the value of members' pension benefits will appear under- (or over-) stated. [½]

It may be sensible to quote the contribution rate before any adjustment for surplus / deficit … [½]

… as this is likely to be more stable than the actual overall contribution rate. [½]

Quoting a high contribution rate may lead to complaints if members compare their benefits, especially leaving service benefits, with accumulated contributions. [½]

Stability of the cost

The employer contribution rate is likely to change after every review … [½]

… it might be better to quote a stable cost to members. [½]

Should the employer quote the 20% figure to members?

The employer should let employees know that it is contributing at 20% of pensionable salaries. [½]

It may also help increase employees' appreciation to understand the level of contributions made to the scheme … [½]

… but it would not be appropriate to disclose *only* the current employer contribution rate of 20%. [½]

[Maximum 9]

[Total 44]

X5.4 Best Toys are the sponsoring employer of the Toys Pension Scheme. Part of the business within Best Toys is being taken over by another company, Balloons R Us.

The Toys Pension Scheme is a final salary arrangement, with an accrual rate of 60ths, and a final pensionable salary definition of basic salary plus bonus over the year prior to leaving the scheme. Over the last year bonuses were on average 20% of basic salary.

Balloons R Us, has a career average revalued earnings scheme, Balloons Pension Scheme. The benefits are summarised as follows:

- Accrual rate: 1/90ths of basic salary
- Pre-retirement revaluation of accrued benefits of active members: price inflation plus 3%.

Discretionary benefit improvements have never been granted in either scheme and neither the trustees nor employers of either scheme intend to grant them in the future.

The schemes provide benefits which are identical in every other respect.

A consultant advising the Balloons Pension Scheme has suggested the following as a method for determining the service credits awarded by the Balloons Pension Scheme to transferring members:

- service in years and months as a member of the Toys Pension Scheme, and
- multiplied by 180%, and
- multiplied by the factor *x/y* where:
  - *x* is the value of £1 of pension accruing on the completion date for the transferring member on the most recent Toys Pension Scheme funding valuation basis
  - *y* is the value of £1 of pension accruing on the completion date for the transferring member on the most recent Balloons Pension Scheme funding valuation basis.

(i) Comment on the suggested method for determining the service credits; include a description of the consultant's aim in putting forward the method, and comment on any changes that could be made. [16]

After discussion, it is agreed that the calculation of service credits will reflect only the differences in benefit structure of the two schemes.

It has also been suggested that the bulk transfer value should be calculated as the value of the accrued benefits in the Toys Pension Scheme based on the most recent funding valuation basis of that scheme.

(ii) Comment on the suggested method for determining the bulk transfer value. [5]

The Finance Director (FD) of Best Toys has also asked about the basis that is being used to calculate the bulk transfer value. The FD understands that the funding basis of the Toys Pension Scheme is a prudent basis and if the transfer value is calculated using this basis then the company would be giving money away.

(iii) Set out the points in reply to the FD's concerns, explaining whether a prudent or realistic basis should be used, and why there could be pressure to use this funding basis. [5]

Balloons R Us are negotiating for the bulk transfer value to be paid:

(a) in stages, such that 80% of the estimated payment is made as soon as practical with the final balance paid once agreed

(b) in assets.

(iv) Set out the points in reply to the following queries by the Finance Director of Balloons R Us:

- the benefits to and potential problems for Balloons R Us of the Toys Pension Scheme agreeing to (a). [4]
- how the Sale and Purchase Agreement should be modified to allow a transfer of assets, rather than cash, as part of the bulk transfer payment and the benefits of transferring assets rather than cash. [5]

[Total 35]

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If the bulk transfer amount was calculated on the prudent basis, then the receiving scheme would benefit from this over-reserving ... [½]

... as the (hidden) over-reserving would emerge as surplus in the future in the Balloons scheme instead of the Toys scheme. [½]

However, in practice, the funding basis is sometimes referred to when setting the basis for the bulk transfer amount. [½]

The accounting basis could be used to determine a best-estimate basis and provide a more realistic assessment of the liabilities. [½]

[Maximum 5]

(iv) ***How and when to pay bulk transfer value***

Staged payments

The benefits to Balloons R Us stem from the possible advantages to the Balloons Pension Scheme which could result in reduced cost and/or risk (and *vice versa* for the potential problems). [½]

Benefits

- The Balloons Pension Scheme may earn a higher rate of interest than is allowed for in the transfer calculation. [½]
- A staged payment allows the trustees of the Balloons Pension Scheme to adopt a matched investment strategy to the liabilities being accepted, at least on around 80% of the bulk transfer amount, reducing mismatching risk. [½]
- It will enable the Balloons Pension Scheme to have greater control over investment of the assets. [½]
- A staged payment could aid cashflow requirements in the Balloons Pension scheme, such as paying pensioners and avoiding the costs of realising other assets. [½]
- There may be improved security in the Balloon Pension Scheme but this depends on what liabilities are deemed to be transferred by the earlier payment (see potential problems below). [½]

Potential problems

- The Balloon Pension Scheme may earn a lower rate of interest than is allowed for in the transfer calculation. [½]
- There may be difficulties establishing what liabilities have been taken on by the Balloons Pension Scheme by the earlier payment ... [½]

  ... *eg w*hat has the Balloon Pension Scheme accepted? What happens if a transferring employee retires or dies? Which scheme has the full liability, if any?

  [½ for any reasonable example]

  The Balloon Pension Scheme should be careful that acceptance of any payment does not mean it has accepted in full the transferring liabilities. This would pose funding and other security problems for the trustees and Balloons R Us. [½]

- It does involve more calculations and checking. [½]
- It may result in a longer time to complete the whole transaction. [½]

[Maximum 4]

The Sale and Purchase Agreement

The Sale and Purchase Agreement should be modified to specify:

- the potential asset classes available for transfer [½]
- the method of valuing the various asset classes, *eg* market value at closing price for the date in question or mid-market value [½]
- time limits for reaching agreement [½]
- that if there is no agreement then cash will be required to be paid [½]
- whether the assets can be identified / valued at transfer date and then subsequently transferred (no need for any adjustment between transfer and actual payment as is required for cash). [½]

Bulk transfer value paid in assets

The benefits to Balloons R Us stem from the possible advantages to the Balloons Pension Scheme which could result in reduced cost and/or risk if appropriate assets are transferred. [½]

- Substantial liabilities are probably being transferred. Transfer of assets means there are no delays between receiving the cash and investing it in appropriate assets which: [½]
  - minimises the risk of mismatching (assuming appropriately matching assets are transferred), and [½]
  - avoids the risk of loss if markets move dramatically. [½]
- Potential saving in transaction charges: [½]
  - costs of investing cash in the Balloons Pension Scheme [½]
  - costs of disinvesting in the Toys Pension Scheme to pay out cash, assuming this is reflected in the transfer amount. [½]
- If the Balloons Pension Scheme receives assets that match the liabilities being accepted, its asset split should automatically reflect the newly combined liability profile. [½]
- Assuming different assets are transferred to the Balloons Pension Scheme from those currently held, then the Balloons Pension Scheme may achieve greater diversification. [½]

[Maximum 5]
[Total 38]

(iii) Carry out an approximate analysis of experience using the above information. [9]

(iv) Comment briefly on the results of the analysis of experience. [2]

(v) Describe the further information you would require in order to carry out a more accurate analysis. [4]

(vi) If you were to carry out an analysis of experience for which the assumptions used differ between the two valuations, briefly describe how you would allow for this in your analysis. You should mention the advantages and disadvantages of any options you might have. [5]

(vii) Outline the issues and actions that should be considered when deciding how to remove the deficit. [14]

The Finance Director has heard that implementing an enhanced transfer value and / or pension increase exchange exercise could help to reduce the potential volatility of the deficit.

(viii) Discuss the advantages and disadvantages of each option from the viewpoint of the employer. [7]

The Finance Director decides to propose to the trustees that the employer offers the pensioners the choice of forfeiting future non-statutory increases in payment on their pension in return for an enhancement to the size of their pension. The Finance Director asks for advice before approaching the trustees.

(ix) Describe the constraints that the employer might face in implementing this proposal. [6]
[Total 56]

X6.3 The sponsor of a small final salary scheme has recently appointed an actuary to replace their previous actuarial adviser.

On death in service, the scheme provides a:

- lump sum benefit of $3 \times$ basic salary, and
- partner's pension of $50\% \times$ potential service $\times$ current basic salary.

Currently, no benefit provided by the scheme is insured. The Finance Director, who is also a trustee of the scheme, is concerned about the employer's exposure to risk in providing a pension scheme and has asked about insuring some of the scheme benefits.

Outline the points to be made in response to the Finance Director's concerns, setting out which benefits could be insured and the advantages and disadvantages of insuring each. [22]

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The employer may be unwilling or unable to clear the deficit immediately, and could suggest:

- that the deficit should be removed over a longer period [½]
- that the employer contributions should be back-end loaded … [½]

  … or increase in line with salaries over time … [½]

  … this approach would repay the deficit more slowly than payment of fixed monetary amounts although it seems less appropriate for a scheme closed to new entrants [½]
- alternative forms of security (if available) – for example contingent assets, parental guarantees, contingent contributions or ratchets in contributions. [½]
- increasing employee contributions to reduce the burden on the employer. [½]

Consider post-valuation events

If the funding position has improved since the valuation so that the scheme is now back in surplus, it may not be necessary to clear the deficit that was present at the valuation date. [½]

Markers: please give credit for other reasonable and relevant points.
[Maximum 14]

(viii) ***Advantages and disadvantages to the employer***

General

The employer should comply with the provisions of any legislation and guidance, such as the voluntary Code of Good Practice for Incentive Exercises in the UK. [½]

The trustees will need to be consulted and be satisfied with how any exercise is being carried out. [½]

Advantages for the employer: Enhanced transfer values (ETV)

Transfer of pension benefits to another arrangement reduces the liabilities and risk remaining in the scheme. [½]

ETV may be calculated on a less prudent basis than the funding basis … [½]

… therefore transfers out will reduce the deficit in the scheme on the funding basis which is likely to lead to reduced contribution requirements for the employer. [½]

The funding level on a solvency basis is likely to improve by more than under the funding basis. [½]

There will also be an impact on accounting. [½]

Advantages for the employer: Pension increase exchange (PIE)

If the value of the level pensions is lower than that of the original pensions on the funding, solvency and / or accounting basis, the funding level on that basis will improve … [½]

… and improvement of the funding level on the funding basis is likely to lead to reduced contribution requirements for the employer. [½]

Level pensions may be easier to match than those with non-statutory pension increases, making it easier to reduce investment risk within the scheme … [½]

… and also cheaper to insure the benefits in future. [½]

Depending on the form of the pension given up, inflation risk may be reduced … [½]

… longevity risk may also be reduced, as more of the pension is paid earlier. [½]

Disadvantages for the employer of incentive exercises

These exercises may have a limited impact, particularly if the take-up rate is low. [½]

Such exercises may damage the employer's reputation, as some members:

- may be suspicious about whether the exercise is really in their interests [½]
- may take up the offer and then be worse off at a later date. [½]

Members (with independent financial advice) are likely to select against the scheme *eg* they will only take up an option if they believe they are likely to be better off. [½]

The company is likely to have to meet the costs of the exercise, including the costs of providing members with independent financial advice. [½]

The company may need to meet the cost of any enhancement … [½]

… which may be unaffordable if the enhancement is large and take-up rate is high. [½]
[Maximum 7]

(ix) ***Constraints arising in a pension increase exchange (PIE) exercise***

The trustees' perspective and the Trust Deed & Rules

It is likely that the consent of the trustees will be needed. [½]

The trustees should seek legal, actuarial and covenant advice. [½]

The trustees must act in the best financial interests of all members … [½]

… and follow the scheme's Trust Deed & Rules, as well as trust law. [½]

The Trust Deed & Rules may not provide for a PIE exercise to take place and so the rules would need to be amended to enable the exercise to take place. [½]

Who has the power to amend the Rules? [½]

Legislation and guidance

Any legislation and guidance should be complied with. [½]

Otherwise:

- the trustees are likely to have concerns about the exercise, and [½]
- members are more likely to have cause for complaints in the future (*eg* that the exercise was mis-sold to them). [½]

Exchanging pension increases for a higher level pension could adversely affect accrued rights and so may trigger legal requirements. [½]

For example the PIE may require:

- written consent from each member or survivor who will be adversely affected by the change, or [½]
- confirmation, such as certification, that the actuarial value of each member's and beneficiary's benefits is at least as great after the change as it was beforehand. [½]

The exercise must meet age, sex *etc* discrimination requirements and these issues should be considered when setting the terms and eligibility. [½]

Good practice

Key features of good practice, which should be considered may include:

- No cash incentives should be offered that are contingent on the member's decision to accept the offer [½]
- Either independent financial advice should be provided to the member, or a value requirement should be complied with and guidance should be provided to the member. [½]
- Communications with members should be fair, clear, unbiased and straightforward. [½]
- Records should be retained by the various parties involved in an exercise so that an audit trail is maintained that can be examined in future. [½]
- Exercises should allow sufficient time for members to make up their mind with no undue pressure applied. [½]
- All parties involved in an incentive exercise should ensure that they are aware of their roles and responsibilities and act in good faith in the areas over which they have direct control. [½]

[Maximum 6]
[Total 56]

