Subject SA2

CMP Upgrade 2023/24

CMP Upgrade

This CMP Upgrade lists the changes to the Syllabus, 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 2023 CMP to make it suitable for study for the 2024 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 2024 *Student Brochure* for more details.

We only accept the current version of assignments for marking, *ie* those published for the sessions leading to the 2024 exams. If you wish to submit your scripts for marking but only have an old version, then you can order the current assignments free of charge if you have purchased the same assignments in the same subject in a previous year, and have purchased marking for the 2024 session.

This CMP Upgrade contains:

- all significant changes to the Syllabus and Core Reading
- additional changes to the ActEd Course Notes and Assignments that will make them suitable for study for the 2024 exams.

1 Changes to the Syllabus

There have been a significant number of changes to how the syllabus objectives are expressed, but the underlying contents are basically unchanged.

Syllabus objectives 0.1 (principal terms) and 5 (solving problems) have been removed, but equivalent wording has instead been included within the wider Syllabus.

A copy of the new Syllabus can be found within the SA2 Study Guide, which is available to download from the **ActEd.co.uk** website: see Products, Study Guides (under 'Core Study Materials').

2 Changes to the Core Reading

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

Throughout the course, dates have been moved forward from May 2022 to May 2023.

Chapter 0

Section 4

There have been significant changes to the content of this section, so a replacement page is provided (current page 9 can also be removed).

Chapter 1

Section 5.1

The final sentence of the second paragraph on page 21 has been amended to:

With interest rates in the USA having fallen from their 1980s level, the minimum guarantee is currently much lower than 4%.

Chapter 4

Section 1.3

On page 8, in the final sentence of the paragraph starting 'The level of interest rates …', the phrase 'are currently experiencing' has been amended to '**recently experienced**'.

In the next paragraph, the word 'has' has been deleted from the first line, and the word 'look' has been amended to '**looked**' in the first bullet point.

In the second sentence of the paragraph below the bullet points, the phrase 'whilst interest rates have been low' has been amended to '**while interest rates were low**' and the word 'recently' has been deleted.

Chapter 7

Section 1.2

Under the heading 'General annuities', the sub-heading 'Investment earnings' and the paragraph below it has been deleted. The sub-heading 'Benefits' has been amended to '**Benefits (and investment earnings)**' and the fourth paragraph in that section has been expanded to:

The remaining proportion of each payment is subject to taxation as income, and this is effectively how the investment earnings accumulated within the policy are taxed.

Under the heading 'Pensions products', in the second Core Reading paragraph in the sub-section 'Benefits', the phrase 'they cause' has been amended to '**the benefit payments cause**'.

Section 3

This Appendix has been removed.

Chapter 8

Sections 3 and 4

There have been several changes to these sections, so replacement pages are provided (all of Section 3 and the first page of Section 4).

Section 6.2

The final paragraph of this section (source reference) has been deleted.

Section 7.1

The effective date of APS X1 has been amended to **March 2019**.

Section 8.1

The third sentence of the penultimate paragraph in this section has been amended to:

At the time of writing (May 2023) the UK government is considering reforming capital rules for UK insurers after leaving the EU.

Chapter 9

Section 5.2

The third paragraph and associated bullet points have been replaced with:

It is unclear the extent to which this alignment will continue in the future. As mentioned in the Regulatory environment chapter, the UK government is considering reforming UK insurers' capital rules, and this could potentially reduce the capital requirements on UK insurers.

In the next Core Reading paragraph, 'are' has been amended to '**were**' and 'become' to '**became**'.

Section 5.8

The background references at the end of this section have been deleted.

Chapter 11

Section 2.3

The effective date of APS X1 has been amended to **March 2019**.

Section 2.5

In the second bullet point, the reference to 'Conflicts of interest: a guide for employers of actuaries' has been deleted (and 'These guides build' has been amended to '**This guide builds**' accordingly). The second sentence of this bullet point now finishes '**regarding identifying conflicts and how they might be managed and reconciled.**'

Chapter 16

Section 2.1

The bullet point references to IFRS 4 and IAS 39 have been deleted.

Sections 2.3, 2.4 and 2.6

There have been several changes to these sections, so replacement pages are provided (existing pages 17 and 18 can also be removed).

Chapter 20

Section 3

The Core Reading references near the end of this section have been deleted.

Chapter 23

Section 0

There is now Core Reading in this section, so a replacement page is provided.

Chapter 24

Section 0

The first Core Reading paragraph is now included as ActEd text, and the following new Core Reading has been added at the start of this section:

This chapter provides the definitions of life insurance terms that are mainly used in practice.

Examiners will expect candidates to understand and be able to use all of the terms, but will not require students to reproduce definitions exactly.

3 Changes to the ActEd material

This section contains all the ***non-trivial*** changes to the ActEd text.

Throughout the course, dates have been moved forward from May 2022 to May 2023.

Chapter 0

Section 0

The paragraph (about Section 4) below the list of sections has been deleted.

Chapter 1

Section 2.2

The phrase 'in terms of both physical and cognitive impairment' has been added to the end of the ActEd paragraph at the top of page 9.

Section 5.2

The following sentence has been added to the end of the first ActEd paragraph in this section:

Although there have been interest rate increases since then, these have mainly benefitted new tranches of universal life policies, as older tranches may be locked in to lower returns on long-term bonds held in the backing portfolios.

Chapter 2

Section 2.1

The third sentence of the paragraph starting 'In the UK, …' has been amended to:

All employers must pay at least 3% of salary (within upper and lower absolute limits) into the pension scheme, with an overall minimum contribution of 8% of salary.

Section 4.3

The final two sentences of the penultimate paragraph have been replaced with:

The extra return needed is known as the 'mortality drag', and some equity investment will likely be necessary to offset this.

Section 7.1

The following paragraph has been added at the end of this section:

<u>In the UK, the Equity Release Council is a voluntary industry body that provides approval and recognition of equity release products and providers that meet its standards. It requires all new plans to give customers the right to make voluntary penalty-free partial repayments. This is particularly beneficial for those on variable interest rate terms, who have experienced increased costs as interest rates have risen.</u>

Section 7.2

The first ActEd paragraph has been replaced with:

<u>In the UK, for example, lending in the equity release market stood at £6.2bn in 2022, an increase of around 30% on the year before. This was a return to the growth levels seen prior to the period of economic uncertainty arising from the COVID-19 pandemic.</u>

In the third sentence of the final ActEd paragraph of this section, the phrase 'are likely to apply' has been amended to '<u>may</u> apply'.

The following sentence has been added to the end of that paragraph:

<u>Similarly, there may be high levels of early repayment on variable rate contracts when interest rates rise.</u>

Chapter 3

Section 1.2

The graph on page 6 has been updated to May 2023.

On page 7, the final sentence of the first paragraph has been amended to:

The <u>equity</u> market has since shown signs of recovery and at the time of writing (May <u>2023</u>) is <u>back around</u> its pre-pandemic level.

In the second paragraph on that page, the second half of the final sentence (from 'although have since …') has been replaced with the following new sentence:

<u>However, as a result of inflationary pressures, UK interest rates have been steadily increased since early 2022 to the current level of 4.5% *pa* (May 2023).</u>

The third paragraph on that page has been amended to:

<u>Despite these economic shifts</u>, new business levels for conventional with-profits business are now close to zero <u>in the UK</u>, although <u>material</u> volumes of in-force business still exist.

Section 1.3

The final ActEd paragraph on page 12 has been amended to:

The recent global pandemic and the resultant volatility in the market, combined with a period of very low interest rates, have also had a negative impact on UK with-profits business, with more insurers closing their with-profits funds to new business.

Section 1.4

In the paragraph starting 'For example, in France …', the phrase 'at least' has been inserted before '85%'.

Chapter 4

Section 1.3

The last paragraph of this section has been amended to:

At the time of writing (May 2023), there has been stock market recovery to around the levels seen prior to the pandemic.

Section 1.5

The following has been inserted after the bullet point list in the section headed 'Benefits for life insurers':

There have been rapid advances in the sophistication of data management and artificial intelligence in recent years. There is potential for this to be utilised in many aspects of the life insurance process, whilst being mindful of the related issues that can arise.

Section 1.7

The second paragraph under the sub-heading 'Increased longevity' has been amended to:

Prior to the COVID-19 pandemic, life expectancy at birth was continuing to improve in most countries. However, there have been indications of a reverse in this trend in some countries. For example, life expectancy at birth in the USA has fallen in recent years, and not purely as a result of the pandemic. It remains to be seen how quickly life expectancies will return to pre-pandemic levels.

In the sub-section headed 'Low interest rates', the first paragraph has been replaced with the following and the second paragraph has been deleted:

From the financial crisis of 2008 to the period of the COVID-19 pandemic, interest rates in developed economies were generally very low, often close to zero (even negative), and fairly stable. In the UK and USA, for example, interest rates during that period were significantly lower than the rates experienced in the 1980s, when they often exceeded 10% *pa*, and the 1990s.

In the sub-section headed 'The 'savings gap'', the second paragraph has been amended to:

Savings gaps are expected to grow considerably over the coming decades in most developed economies. In the UK, for example, this is the result of factors such as pressures on government spending, the rising cost of long-term care and the decline of defined benefit pension provision.

In the final paragraph of this section (under the heading 'Meeting the needs of the target market'), the final phrase 'which should result in future cost savings' has been amended to 'but then benefitted from the resultant cost savings'.

Section 1.8

In the final ActEd paragraph, the second sentence has been amended to:

However, the attraction of this opportunity was significantly weakened by the lengthy country-wide lockdown imposed by the Chinese government during the global pandemic.

Section 1.9

The ActEd text within the first bullet has been replaced with:

These codes, statements and guidance notes largely cover aspects relating to product design and distribution.

The Equity Release Council (mentioned in an earlier chapter) is another example of an industry body operating in the UK, giving consumers confidence in the equity release products offered by its members.

Section 2.9

The following paragraph has been inserted at the end of the section headed 'Relative importance':

Online purchasing is also likely to have become more popular globally as a result of the COVID-19 pandemic and the subsequent restrictions on and difficulties of personal contact.

Practice Questions

The following new question has been inserted as Question 4.3:

Outline the main implications for life insurance companies of moving into a period of high inflation.

Practice Solutions

A replacement page is provided for the solution to the new question.

Chapter 6

Section 3.4

The last paragraph of this section has been amended to:

An example of this is the 'lifetime allowance' on UK pensions business, which was in place until April 2023.

Chapter 7

Section 1.2

In the section headed 'Pensions products':

- The tax-free contribution limit referred to in the ActEd paragraph under the sub-heading 'Premiums' has been amended to £60,000.
- The following paragraph has been inserted after the first ActEd paragraph under the sub-heading 'Benefits':

The 25% tax-free lump sum is limited to a maximum of £268,275 (May 2023), which is 25% of the 'lifetime allowance' that was in-force up to April 2023 (see below).

- In the same sub-section, the paragraph starting 'This 'lifetime allowance' …' has been replaced with the following two paragraphs:

This 'lifetime allowance' was set at £1.073*m* for the tax year ending in April 2023. The additional tax charge was applied to any accumulated pension funds in excess of this allowance, whether these were taken as cash, income drawdown or an annuity. The tax rate used was greater than the marginal rate in the highest income tax band.

However, as at the time of writing (May 2023), there are no longer any tax charges applied on excess pensions savings over the 'lifetime allowance', and the intention is to abolish this limit completely.

- In the solution to question part (iv), the phrase in brackets has been deleted.

Section 1.3

In the section headed 'Non-BLAGAB', the tax rate in the second sentence of the paragraph starting 'The Companies Act accounts …' has been amended to 25% and the third sentence of that paragraph has been deleted.

Section 2.1

In the section headed 'Policyholder taxation', the ActEd paragraph has been amended to:

The current rate of exit tax (May 2023) is 41% for individual policyholders, although there is some pressure to bring the tax rate into line with that charged on gains from other investments (*eg* 33% on capital gains on equities).

Summary

In the middle column of the table on the second page, the bullet point ‘gross roll-up’ has been deleted from the row on South Africa.

Practice Questions

In Question 7.5, the phrase ‘<u>: an equity share</u>’ has been inserted at the end of the first sentence.

Chapter 9

Section 5.2

The following new paragraph has been inserted below the new Core Reading paragraph and above the Core Reading paragraph starting ‘Immediately following the …’:

<u>For example, it is expected that the calculation of the risk margin and the rules regarding the determination and application of the matching adjustment will be less onerous under the proposed new ‘Solvency UK’ regulations than under Solvency II. (The risk margin and matching adjustment are described in more detail in the next chapter.)</u>

Chapter 10

Section 2.1

The link to the EIOPA website on page 8 has been updated to:

<u>eiopa.europa.eu/tools-and-data/risk-free-interest-rate-term-structures_en</u>

The table on page 9 has been updated to the following, showing rates as at May 2023.

Term (years)	**1**	**2**	**5**	**10**	**20**	**40**
Euro	3.739%	3.400%	2.910%	2.842%	2.722%	2.876%
UK	5.253%	5.032%	4.434%	4.044%	3.915%	3.547%
USA	5.052%	4.287%	3.506%	3.353%	3.318%	3.049%

Chapter 11

Section 2.5

In the ActEd paragraph below the second bullet, the first sentence has been deleted and the phrase ‘<u>, including case studies</u>’ has been inserted after ‘conflicts of interest’.

Section 3.3

The ActEd description of the TAS 100 principles has been updated, with a replacement page being provided.

Summary

Under the heading 'Technical Actuarial Standards', the point on TAS 100 has been amended to:

- TAS 100 (Generic TAS): Principles for Actuarial Work
  - covering the high level principles of judgement, data, assumptions, models, communications, documentation (and risk identification)

Chapter 13

Sections 6.3

The last four paragraphs of this section have been replaced with:

Securitisation has also been used by insurance companies to allow assets to meet the requirements for a matching adjustment when they otherwise wouldn't, *eg* equity release assets. The insurer could securitise *part* of the unpredictable cashflows (which will depend on mortality and early redemption experience) from such assets, thus converting them into a security that is more like a fixed-interest bond.

Chapter 15

Sections 2.3, 2.4 and 3

The interest rates and investment returns in the examples / questions in these sections have been increased, but the principles and explanations remain unchanged.

Chapter 16

Summary

The chapter summary has been updated to reflect the Core Reading changes, so a replacement page is provided.

Practice Questions

Question 16.3 has been deleted.

Question 16.5 (now Question 16.4) has been amended to the following:

Prior to the implementation of IFRS 17, several EU-listed life insurance companies decided to start using liability calculations based on Solvency II rules in their financial statements, rather than continuing to use accounting policies based on Solvency I methodologies (*ie* prudent liabilities). This switch was permitted by the IASB.

Discuss the advantages and disadvantages of making the switch to using a Solvency II methodology in the financial statements, rather than continuing with the Solvency I methodology.

Practice Solutions

A replacement page is provided for the solution to the amended Question 16.5 (now Question 16.4).

Chapter 20

Section 3

The final paragraph of this section (about the Core Reading references) has been deleted.

Chapter 21

Section 6.2

In the solution to the first question, the reference to the Subject SP2 Core Reading has been deleted.

Section 6.4

The first ActEd paragraph within the section headed 'What experience should be projected?' has been amended to:

For example, in the UK the CMI has also issued a library of spreadsheets, including stochastic projections, and a deterministic mortality projections model for life insurers to use. Although the library spreadsheets are no longer being updated, they and the projections model have been widely used to express future mortality improvement assumptions.

Chapter 23

Section 2

In the first paragraph, '15 minutes' has been amended to '20 minutes'.

Section 6

The ActEd paragraph under the heading 'Revise the Core Reading and Course Notes' now also refers to finding the 'Online Classroom and/or Sound Revision' helpful.

Chapter 24

Insurance contract*

The following ActEd text has been inserted below the definition:

<u>The definition of an insurance contract under IFRS 17 (which has replaced IFRS 4) is:</u>

<u>‘a contract under which one party (the issuer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder’.</u>

4 Changes to the X Assignments

Overall

There have been various changes throughout the assignments. The non-trivial amendments are listed below and we have also indicated which assignment questions have changed significantly, but details are not given of those more significant changes.

If you would like the new assignments *without* marking, then retakers can purchase an updated CMP or standalone X Assignments at a significantly reduced price. Further information on retaker discounts can be found on the **ActEd.co.uk** website (Prices, Retaker Discounts).

If you wish to submit your scripts for marking but only have an old version, then you can order the current assignments free of charge if you have purchased the same assignments in the same subject in a previous year, and have purchased marking for the 2024 session. We only accept the current version of assignments for marking, *ie* those published for the sessions leading to the 2024 exams.

Assignment X1

Question X1.1

On page 2, the interest rates in (d) have been amended to <u>5% *pa*</u> and <u>3% *pa*</u> respectively.

Solution X1.1

In the eighth point under part (iv)(d), the phrase 'a very low' has been amended to '<u>a lower</u>'.

Assignment X2

Question X2.2

In part (v), the word 'new' has been amended to '<u>updated</u>'.

Solution X2.2

In part (iii), the point at the top of page 7 ('The regulator may be obliged …') has been deleted, and in the point below it the phrase 'In addition,' has been deleted so that it now starts '<u>If the regulator feels …</u>'.

In the same question part, the following point has been added at the end of the solution:

<u>The regulator might require the insurer to produce a resolution plan, to allow it to fail in an orderly manner, if recovery actions are not successful.</u> [1]

Solution X2.3

In part (v)(a), the fifth and sixth scoring points have been amended to the following:

The fact that this assumption is negative means that the company is assuming that these events are related ... [½]

… but that they are likely to work in opposite directions, *ie* that one risk is likely to worsen as the other improves, and vice versa. [½]

In part (v)(b), the final point has been amended to:

So the size of the correlation will reflect the balance between term assurance and unit-linked business in the company, *ie* the larger the proportion of unit-linked business, the lower the correlation. [½]

In part (v)(c), the first point has been deleted and the second point now starts 'Having a positive correlation seems reasonable, …'.

There have been more significant changes to and rearrangement of the solution to part (vi). If you wish to obtain an updated version, please see the information given at the start of this section.

Assignment X3

Question X3.1

In part (ii), the word 'six' has been deleted.

Question X3.3

The word 'bonds' has been added at the end of the second bullet point.

Solution X3.1

There are material changes throughout the solution to part (ii). If you wish to obtain an updated version, please see the information given at the start of this section.

In part (iii), the fourth point under the heading 'Investment strategy' has been simplified to:

However, moving to safer, lower return assets might not meet policyholders' reasonable expectations. [½]

In part (iv)(c), the second point has been amended to the following:

This new asset mix is likely to produce returns at a relatively low growth rate, and this might even be lower than the lowest rate specified by the regulator. [½]

Solution X3.2

In part (ii), under the heading 'Costs of selling and managing the business', the point 'investment and valuation' has been split into two separate half mark points: 'investment', 'valuation'.

In part (iv), the first point has been split into two half mark points after 'annuities'.

Solution X3.3

Under the heading 'Model inputs – liabilities', the second point has been replaced with the following:

The choice would have depended on the number of in-force policies … [½]

… and the complexity and variability of the products / model. [½]

A policy-by-policy approach would better model the inherent benefit guarantees (particularly if a stochastic approach is being used). [½]

Assignment X4

Question X4.2

There has been material rewording throughout this question, to reflect that the company would already be subject to Solvency II supervisory reporting. If you wish to obtain an updated version, please see the information given at the start of this section.

Solution X4.1

In part (i), under the heading 'Expenses (both products)', 'preparation for' has been amended to 'implementation of' in the first bullet point, and the following has been added to the bullet point list:

- higher than expected expense inflation [½]

Solution X4.2

There are material changes throughout this solution. If you wish to obtain an updated version, please see the information given at the start of this section.

Assignment X5

Question X5.2

In the second paragraph, '25 years' has been amended to '30 years'.

In the final sentence of the paragraph below part (iii), the phrase 'out of the with-profits fund' has been inserted after 'Switches'.

In the sentence within quotation marks that sits below that paragraph, 'unit-linked' has been inserted after 'required'.

Solution X5.1

In part (ii):

The second paragraph has been amended to:

The closer a company matches its liabilities with assets of similar nature (including risk exposures), terms and currencies, the more likely it will be able to meet its contractual liabilities as they fall due. [½]

The fourteenth point (starting 'Current market conditions …') has been amended to:

Returns on more traditional assets such as government and corporate bonds might currently be relatively low, increasing the incentive for the company to look at alternative assets. [½]

The nineteenth point (starting 'The company may be keen …') has been amended to:

The investments may provide the company with a competitive advantage. [½]

Solution X5.2

In part (i)(b):

In the first point under 'Pensions contracts', 'Some' has been amended to 'Many', and the figures have been amended to '45-year old' and '25 years ago' respectively.

Under the heading 'Endowment assurances':

- In the first point, 'Some' has been amended to 'Many'.
- In the second point, the phrase 'may be coming up to maturity now' has been amended to 'are likely to have matured'.
- In the third point, the word 'remaining' has been inserted after 'so the majority of the'.

In part (ii):

The sixth bullet point under the heading 'Determination of maturity benefits' now ends at 'supervisory reserves' (with the remainder having been deleted).

The third point under the heading 'Determination of death benefits' has been amended to:

For savings contracts, such as the single premium bonds, the death benefit could be the bid value of units or slightly higher, *eg* 101% of that fund value. [½]

In the sixth point under the heading 'Determination of surrender (or transfer) benefits', the phrase '(*ie* charges based on monetary amounts)' has been inserted after 'allocation rate'.

Assignment X6

Question X6.3

The word ‘two’ has been inserted before ‘options’ in the second paragraph.

Solution X6.2

In part (i), under the heading ‘Suitability to meet customer needs for defined target market’, the first point has been deleted and the second point has been replaced with:

<u>Given the low income of the target market … [½]</u>

<u>… MI premiums, and hence sums assured, will need to be low. [½]</u>

5 Other tuition services

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

5.1 Study material

We also offer the following study material in Subject SA2:

- Flashcards
- Sound Revision
- 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 2024 *Student Brochure*, which is available from the ActEd website at **ActEd.co.uk**.

5.2 Tutorials

We offer the following (face-to-face and/or online) tutorials in Subject SA2:

- a set of Regular Tutorials (lasting a total of three days)
- a Block Tutorial (lasting three full days)
- an Online Classroom.

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

5.3 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 2024 *Student Brochure*, which is available from the ActEd website at **ActEd.co.uk**.

5.4 Feedback on the study material

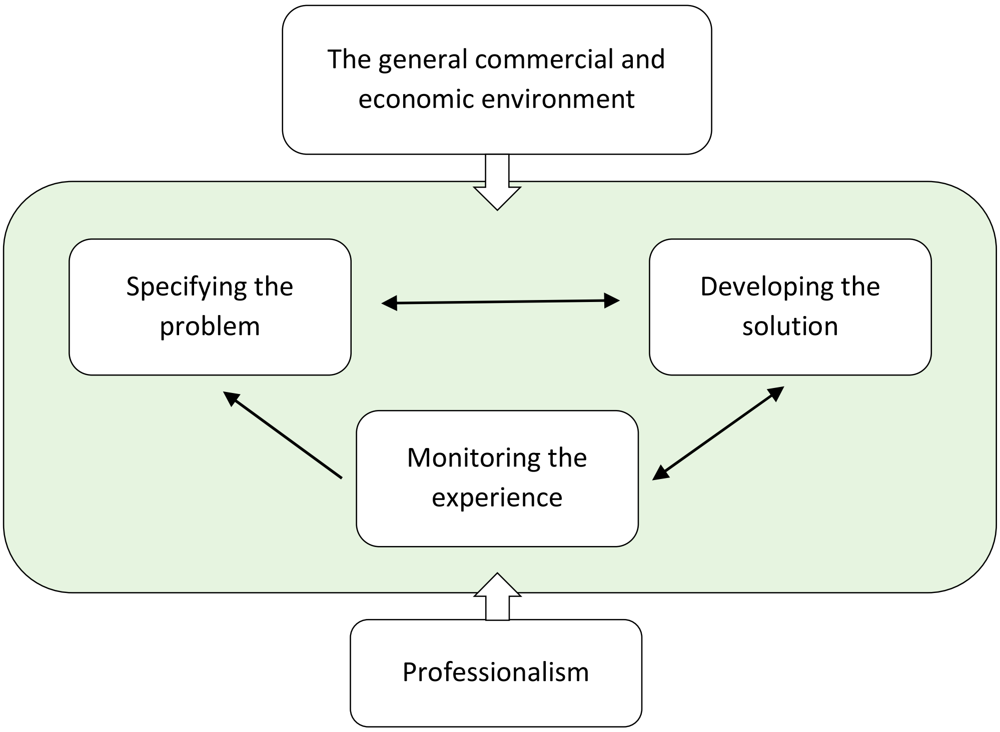
ActEd is always pleased to receive feedback from students about any aspect of our study programmes. Please let us know if you have any specific comments (*eg* about certain sections of the notes or particular questions) or general suggestions about how we can improve the study material. We will incorporate 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 **SA2@bpp.com**.

3 The actuarial control cycle

The Syllabus for Subject CP1 requires students to understand the actuarial control cycle, ‘the purpose of each of its components’ and how it ‘can be applied in a variety of practical commercial situations, including its use as a risk management control cycle’.

The actuarial control cycle is an example of the general control cycle used by all businesses. Within Subject SA2, it is of particular relevance in risk management.



As indicated by the arrows between the stages of the control cycle, the models used in risk management are *dynamic*. They will change in light of experience or following changes in the environment in which the model operates.

The actuarial control cycle can provide a useful framework for solutions, or a prompt for areas / topics to consider in your solution.

4 Further reading

4.1 Introduction

You may wish to do some additional reading for this Subject. This would not be directly examinable, but can help to broaden your outlook on life (insurance).

Any such reading should ideally be 'active'. As you read, stop to think about the issues being raised, come up with your own solutions to any problems highlighted and think how workable the theory might be in practice. Then read further into the detail and compare your ideas critically with those being expressed by the author(s).

Benefit can also be gained by reading any executive summaries, introductions or concluding sections. These will provide a flavour of the topic and some of the salient points covered.

4.2 Additional reading resources referred to in the Core Reading

A list of additional resources to support candidate learning and development for this subject can be found on the Module pages of the IFoA website.

The list can be found in the SA2 'Resources' section of the IFoA website. As at the time of writing (May 2023), this section is at:

actuaries.org.uk/qualify/curriculum/life-insurance/resources-for-sa2

All resources are hyperlinked to their source publication or the IFoA library. Where a resource is available through the IFoA library, members, students and affiliates can 'request' it from the IFoA library service, subject to availability.

Such requests can be made by emailing the library service at libraries@actuaries.org.uk.

4.3 Other sources of information

The following might also be useful to enhance your wider understanding:

- the financial and trade press, including The Actuary magazine
- bulletins and other publications from reinsurers and consultancies
- other papers from the IFoA and the Staple Inn Actuarial Society (sias.org.uk/resources)
- Continuous Mortality Investigation bulletins
- presentations made at recent Life Conferences or other life insurance seminars.

Solution to new Practice Question:

Impact on life insurers of moving into a high inflation environment

Potential impacts include:

- higher expenses of running the business, including any rental costs
- demands for higher wage increases from staff, who want their earnings to keep pace with increases in the cost of living
- higher cost of providing benefits under index-linked products, unless hedged
- lower demand / persistency for without-profits products, as benefits will be eroded in real terms
- higher demand / persistency for index-linked / with-profits / unit-linked products, which should offer real returns
- lower demand / persistency for life insurance in general, as disposable income levels reduce
- lower take-up of mortgage-related products (*eg* endowment assurances, term assurances, equity release mortgages), if interest rates rise and loans become less affordable
- higher demand for immediate annuities compared with other retirement options, if annuity prices improve due to higher interest rates / bond yields
- falls in the value of existing fixed-interest bonds, if interest rates rise, particularly longer-term bonds …
- … with corresponding falls in the value of liabilities; overall impact depends on extent of matching and what the surplus assets are invested in.

3 Treatment of groups

The 2007 financial crisis demonstrated that some financial institutions had become too big to be allowed to fail. As a result, banks in many countries were bailed out by their governments. Regulators were concerned that action should be taken to avoid this being necessary in the future.

Some insurance companies are of such size, market importance and global interconnectedness that their distress or failure would cause severe adverse consequences across the global financial system.

In this case, they may be subject to additional regulatory scrutiny.

For example in 2013, the International Association of Insurance Supervisors (IAIS) announced its intended approach to the identification of 'global systemically important insurers'. Shortly afterwards, the Financial Stability Board (FSB) published an initial list of nine such G-SIIs. This list was updated on an annual basis.

For example, the UK-based companies Aviva and Prudential were on the list.

G-SIIs were subject to enhanced supervision, including the need to have in place systemic risk management plans, enhanced liquidity plans and effective separation of non-traditional or non-insurance business (where feasible and appropriate).

So G-SIIs were subject to greater scrutiny by regulators and were required to hold more and higher loss absorbent capital and to prepare recovery and resolution plans. A similar system was set up for global systemically important banks.

The FSB decided to discontinue the annual identification of G-SIIs in 2023.

Going forward, the FSB will base its considerations of systemic risk in the insurance sector on the IAIS Holistic Framework for the assessment and mitigation of systemic risk in the insurance sector.

This framework includes:

- a set of supervisory policy measures designed to increase the overall resilience of the insurance sector, with related powers of intervention
- assessment of whether the supervisory measures have been implemented consistently throughout the insurance industry
- monitoring of global insurance market trends and developments, to detect the possible build-up of systemic risk in the insurance sector.

4 Statutory actuarial roles

In many jurisdictions there is a statutory requirement for a life insurance company to appoint actuaries into certain roles of responsibility. The titles applied to these roles can depend on a number of factors, such as local regulations, the responsibilities of the role and the circumstances of the firm, such as whether it is a Solvency II or a non-Solvency II firm. For example, in the European Union under Solvency II there is a statutory requirement to have a Chief Actuary. Other possible titles for statutory actuarial roles include Actuarial Function Holder, Appropriate Actuary or Appointed Actuary.

The detail of any statutory actuarial roles and their responsibilities in a particular jurisdiction will be set out in the relevant regulatory rulebooks. These roles are also likely to be covered by any 'fit and proper persons' regulations. The holders are usually not allowed to fulfil other roles within a firm that would cause a conflict of interest, or if they do then the firm is required to declare these roles to the regulator.

The exact nature of the role may vary by jurisdiction, but examples of the types of responsibility allocated to a Chief / Appointed Actuary or Actuarial Function Holder could be:

- **ensuring the adequacy of technical provisions**
- **ensuring the appropriateness of the methodology and assumptions used to calculate the technical provisions**
- **assessing the sufficiency and adequacy of the data used to calculate the methodology and assumptions**
- **expressing an opinion on the adequacy of reinsurance arrangements.**

In some jurisdictions, a company that transacts with-profits business may have a statutory requirement to have a With-Profits Actuary in addition to either a Chief Actuary, Actuarial Function Holder or Appointed Actuary.

When a With-Profits Actuary is appointed, they usually cannot be a member of the Board of Directors. This may also apply to Actuarial Function Holders and Appointed Actuaries. However, subject to certain conditions, the Chief Actuary (or Actuarial Function Holder / Appointed Actuary) and With-Profits Actuary can sometimes be the same person.

The three Generic TASs were:

- TAS D – Data
- TAS M – Modelling
- TAS R – Reporting Actuarial Information.

3.3 Current TAS framework

The new framework of TASs consists of:

- **a framework document**
- **a Generic TAS**
- **three revised Specific TASs**
- **a glossary of defined terms used in the TASs.**

Framework document

The 'Framework for FRC Technical Actuarial Standards' sets out the authority, scope and application of the TASs and also sets out the FRC's Reliability Objective.

The Reliability Objective provides that 'Users for whom actuarial information is created should be able to place a high degree of reliance on that information's relevance, transparency of assumptions, completeness and comprehensibility, including the communication of any uncertainty inherent in the information.'

Generic TAS

'Technical Actuarial Standard 100: Principles for Actuarial Work' (TAS 100) comprises six high level outcome-focused principles which are applicable to all technical actuarial work carried out within the FRC's UK geographic scope. It sets out the standard of technical actuarial work that users are entitled to expect.

The purpose of TAS 100 is to promote high quality technical actuarial work. The six high level principles relate to:

- **judgement**
- **data**
- **assumptions**
- **models**
- **communications**
- **documentation.**

The six principles referred to above are:

- Judgement must be exercised in a reasoned and justifiable manner.
- Data used in technical actuarial work should be sufficiently accurate, complete and appropriate.
- Assumptions used, or proposed for use, in technical actuarial work must be appropriate.
- Models used in technical actuarial work should be fit for purpose and subject to sufficient controls and testing.

  The above four principles aim to ensure that the intended user can rely on the resulting actuarial information.
- Communications must be clear, comprehensive and comprehensible, so that the intended user can reasonably be expected to understand matters relevant to the actuarial information and make informed decisions.
- Documentation relating to technical actuarial work should contain sufficient detail for a technically competent person responsible for reviewing or providing assurance in relation to that work to understand the matters involved and assess the judgements made.

An updated version of TAS 100 (effective from July 2023) contains a seventh principle, on risk identification:

- Practitioners carrying out technical actuarial work must identify and consider all relevant material factors and relevant material risks that may affect or have the potential to influence their work and which they might reasonably be expected to know about at the time of carrying out that work.

These high level principles are supported by 'applications', which are more detailed statements of requirements. For example, under the data principle: 'Practitioners should seek to ensure data that is considered insufficient or unreliable is improved to address its deficiencies, for example by adjusting or supplementing it'.

The main difference between the Generic TASs under the original framework and TAS 100 is that TAS 100 applies to all 'technical actuarial work' while the original Generic TASs only applied to work which was reserved to actuaries (*ie* work that can only be performed by actuaries) or work which was in the scope of a Specific TAS.

Question

Suggest areas of UK life insurance actuarial work that could be covered by TAS 100.

In the description of the various accounting requirements, the primary focus is the balance sheet and, in particular, how to put a value on the tangible assets (financial instruments) and on the policy liabilities.

Fair representation

The financial statements must 'present fairly' the financial position, financial performance and cashflows of an entity.

Going concern

The financial statements are normally prepared assuming the entity is a going concern and will continue in operation for the foreseeable future. The assumption here is that the reporting entity has no intention to liquidate or to adversely curtail its scale of activities. If this is not the case, then a different basis of reporting may be necessary and that basis must be disclosed.

Accruals based

An entity must prepare its financial statements, except for cashflow information, using the accrual basis of accounting. Accrual accounting is the recording of revenue when earned and expenses when incurred, irrespective of when the actual cashflows occur. This approach results in the most accurate representation of the financial position of a business.

For example, a company should set up a liability for estimated bad debts (amounts owed that will not be paid) when the estimate is made, not when a debt is finally written off.

Comparability

The presentation and classification of items in the financial statements shall be retained from one period to the next unless a change is justified either by a change in circumstances or a requirement of a new IFRS.

Compliance

An entity that prepares its financial statements in accordance with IFRS must make an explicit and unreserved statement of compliance. An entity shall not describe financial statements as complying with IFRS unless they comply with all of its requirements.

Reporting period

There is a presumption that financial statements will be prepared at least annually. If the annual reporting period changes and financial statements are prepared for a different period, the entity must disclose the reason for the change and state that amounts are not entirely comparable.

Understandability

A primary characteristic of financial information is that it should be readily understandable by the user. This assumes the user has knowledge of the business, its economic activity and accounting concepts. This should not deter the reporting entity from including complex matters in the financial reports.

Offsetting

Assets and liabilities, and income and expenses, may generally not be offset.

2.3 Insurance contracts *vs* investment contracts

Different accounting standards apply for determining the value of *insurance* contract liabilities than for *investment* contract liabilities.

IFRS 17 defines an insurance contract as 'A contract under which one party (the issuer) accepts significant *insurance risk* from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder'.

An *insurance risk* is a risk other than a financial risk. A *financial risk* is a risk of a possible future change in one or more of a specified:

- interest rate
- financial instrument or commodity price
- currency exchange rate
- index of prices or rates
- credit rating or credit index
- other variable that is not specific to a party to the contract.

Examples of insurance risk therefore include mortality, longevity and morbidity risks.

Conventional without-profits policies (*eg* term assurances, critical illness insurances, annuities) are likely to be classified as *insurance* contracts.

Unit-linked policies may be classified as *insurance* contracts or as *investment* contracts, principally depending on whether there is a significant additional death benefit payable. For example:

- a regular premium unit-linked contract with a large guaranteed death benefit amount would likely be classified as an insurance contract
- a single premium unit-linked contract with a death benefit equal to 101% of the value of units would likely be classified as an investment contract.

With-profits ('participating') policies are classified as *insurance* contracts, provided the company issues other types of insurance contract. Otherwise they are accounted for as *investment* contracts.

Some *insurance* contracts include 'non-insurance components', such as embedded derivatives (*ie* financial options and guarantees included within policy terms). Depending on the details, these may have to be separated out and accounted for in the same way as an *investment* contract.

The next two sections cover accounting for *insurance* contracts and *investment* contracts respectively.

2.4 Accounting for insurance contracts – IFRS 17

Background

IFRS 17 took effect from 1 January 2023.

It replaces the previous standard IFRS 4. IFRS 17 is much more prescriptive than IFRS 4, and its adoption has led to a substantial change in financial disclosures and the systems and processes that produce them.

IFRS 4 was an interim standard that set out how companies should account for insurance contracts during the period whilst IFRS 17 was being developed and before it was fully implemented. It allowed insurers to continue to use existing accounting policies, to adopt IFRS 17 early, or to move to another methodology such as one based on Solvency II requirements.

IFRS 17 is the result of many years of work by the International Accounting Standards Board, with extensive input from a wide range of international stakeholders.

IFRS 17 represents the first comprehensive international accounting standard that can be applied to all types of insurance contracts. IFRS 17 aims to make the financial statements of life insurance companies more relevant, comparable and transparent.

Both Solvency II and IFRS 17 are moves towards more market-consistent valuations. One result of these developments is that in future the difference between solvency reporting and accounting value reporting in the EU will be much smaller than in the past. As will be seen in the next chapter, developments in supplementary (EV) reporting have also been moving in this same general direction.

The main criticisms of IFRS 4 concerned:

- **the sensitivity of profits to reserving assumptions**
- **the lack of comparability of different life insurance companies**
- **the early recognition of premiums and profits for long-term contracts.**

IFRS 17 addresses each of these criticisms.

For many life insurance companies, IFRS 17 is expected to have a significant impact on their financial statements. Even if the reported numbers do not change significantly, IFRS 17 requires a lot of new information to be disclosed.

The implementation of IFRS 17 has taken much longer than planned, and for many insurers it has been complex and expensive to implement.

Valuation methods

The standard describes three valuation methods:

- **The *General Measurement Model (GMM)*, also referred to as the *Building Block Approach (BBA)*, is described below.**

  The GMM defines how the initial measurement of the assets and liabilities of an insurance contract should be recognised and re-measured over time. It defines how the revenue and profit of a contract is realised over the life of the contract.

  The GMM is the default valuation methodology for any insurance contract under IFRS 17. This method is likely to be appropriate for traditional long-term life insurance business such as term assurance and non-profit (*ie* without-profits) annuities.

- **The *Variable Fee Approach (VFA)* may be adopted where a significant proportion of the cashflows vary in line with the value of a clearly defined pool of assets.**

  This method is typically used for unit-linked contracts and contracts with 'discretionary participating features' (DPF) (*ie* with-profits). The VFA is discussed later in this section.

- **The *Premium Allocation Approach (PAA)* is a simplified model that is similar to the unearned premium method used by general insurers.**

  This approach is suitable for simpler contracts and most general insurance business. It is unlikely to be relevant to life insurance business, and so it will not be discussed further here.

GMM

Building blocks

The GMM determines the insurance company liability using four building blocks:

- **the fulfilment cashflows**
- **the time value of money**
- **the risk adjustment (RA)**
- **the contractual service margin (CSM).**

IFRS 17 actually defines the 'fulfilment cashflows' as the probability-weighted estimate (*ie* expected value) of the present value of the future net cashflows out that arise as the company fulfils its obligations to policyholders, *including* the risk adjustment. Hence the term also encompasses the second and third point in the above list.

The four building blocks may look odd to actuaries used to producing regulatory balance sheets, but if we merge the first two building blocks and call it the best estimate liability (BEL), it should look more familiar. The following describes the three monetary values: BEL, RA and CSM.

Best estimate liability (BEL)

The methodology for calculating the BEL is similar to that required by Solvency II:

- **derive best estimate assumptions**
- **derive a discount rate from observable market data**
- **discount the projected cashflows**
- **allow for the cost of any guarantees.**

The actual IFRS value may differ from that calculated for Solvency II for a few reasons, including the unbundling of contracts and the offsetting of profitable and unprofitable contracts, which will be discussed below. There could be other reasons for differences, *eg* different yield curves or different expense assumptions may apply.

Risk adjustment (RA)

The RA is similar to the Solvency II risk margin, representing the value of the guarantees not captured in the BEL (*ie* the non-market risks). The RA may be calculated in one of three ways:

- **Value-at-Risk (VaR)**
- **conditional tail expectation (CTE)**
- **cost of capital (CoC).**

IFRS 17 does not specify the confidence level at which the RA should be set – this is at the choice of the insurer.

The RA is likely to be calculated allowing for diversification of risk factors, but the RA must be attributed to individual contracts.

Contractual service margin (CSM)

The CSM is a new concept. At inception, the CSM is set equal to what would otherwise have been considered the day one profit *ie* the initial premium, less the attributable initial expenses, less the BEL, and less the RA.

The initial CSM is set at inception ('day one', *ie* the point at which the policy is written) for each policy (or group of homogeneous policies), so that the total initial liability of BEL + RA + CSM equals the initial net cashflow of initial premium minus initial expenses. This means that zero profit arises at the point at which the policy is sold. Thus:

CSM = Initial premium – Initial expenses – BEL – RA.

However, the CSM cannot be negative, either at issue or subsequently. Therefore, if BEL + RA exceeds the initial net cashflow, a loss would be recognised immediately.

For a contract that has been written to generate profit, as would normally be the case, the CSM would be greater than zero – provided the risk adjustment (RA) is not too onerous.

Question

Explain why the CSM would be expected to be positive for a profitable regular premium contract, despite initial expenses being likely to exceed the initial premium.

Solution

The CSM would likely be positive for such a contract because the BEL would be negative. This is because the value of future premiums deducted from the BEL would be expected to exceed the value of future benefits and expenses, due to the loadings in those premiums to recover initial expenses and to provide profit margin.

As long as the RA is smaller than the discounted value of all profit loadings, the CSM would be positive.

The CSM may be thought of as 'future profit' or 'unearned profit'. This is a key feature of IFRS 17 reporting – the CSM is released (*ie* profit emerges) over the term of the policy.

The initial CSM is written down (*ie* gradually reduced) over the term of the contract. This write-down is done in line with a chosen 'coverage unit' measure, such as the number of policies in-force. Contracts can be grouped, but have to remain in annual cohorts (*ie* policies written more than one year apart cannot be grouped together).

The release of CSM at each accounting date contributes to profit for that period. Doing this allows the profit loadings to emerge steadily over the policy term, thus smoothing or stabilising reported profit.

Another feature of the CSM is that it offsets the change in value of the BEL and RA due to assumption changes, which means the profit reported in a given year will be affected more by actual experience and less by assumption changes.

In other words, if changes are made to non-investment assumptions (*eg* mortality rates), the CSM is adjusted to offset any resultant change in the BEL and RA. The total liability remains unaffected by the assumption change, and this also contributes to the smoothing of profit emergence. However, if the CSM is not large enough to absorb an increase in BEL and RA, the shortfall will be recognised immediately as a loss.

Another IFRS principle is that profitable and unprofitable contracts should not be offset. Under IFRS 17, each policy should be categorised as one of:

- **loss-making at inception**
- **profitable with no significant risk of making a loss**
- **any other profitable contracts.**

The last categorisation is referring to policies which are profitable at inception but become loss-making or have a significant risk of making a loss.

When contracts make a loss, that loss is incurred immediately, and when contracts make a profit, the profit will be earned over the term of those contracts. This is deliberately asymmetric. Note that contracts in a loss position are referred to as having a 'loss component' rather than a CSM, as the CSM cannot go negative.

VFA

The Variable Fee Approach (VFA) is a different calculation to that of the GMM, but the objectives are the same. Subject to the constraints mentioned earlier, the VFA may be used for unit-linked, with-profits or other contracts in which the fulfilment cashflows vary in line with a pool of assets.

The 'variable fee' element represents the fee payable to the insurer, which also varies in line with the value of the pool of assets. Since the variable fee is a transfer of funds within the insurer, rather than a cashflow, it is not part of the fulfilment cashflows and so not part of the BEL. The concepts of RA and CSM also apply to the VFA.

A key difference between the GMM and the VFA concerns the discount rate. For the VFA, the discount rate is calculated with reference to the pool of assets, and the CSM is unlocked at each future period to absorb the change in the value of BEL and RA as a result of the change in the discount rate. Under the GMM, the discount rate is based on market observable data, and the CSM is not unlocked when the discount rate changes.

For example if the discount rate increases, the BEL and RA will fall. Under the GMM approach, similar to Solvency II, this will create a release of profits (which will be shown in the profit and loss statement (P&L) or income statement). In contrast, under the VFA approach, this profit release will get absorbed by the CSM (*ie* the CSM will be increased by the same amount) and will only be released as the CSM unwinds.

Disclosure requirements

The standard also describes the various disclosures, including:

- **the insurance revenue earned**
- **insurance service expenses incurred**
- **insurance finance income and expenses.**

Transitional arrangements

An important area for many insurance companies has been the transitional arrangements when IFRS 17 came into effect. Companies were required to calculate a transitional CSM for business that was already in-force when IFRS 17 took effect. This was a significant area for many insurers and a key part of the transitional balance sheet.

The fact that the CSM is set at policy inception and then written down in a defined pattern presented practical issues for insurers in relation to the implementation of IFRS 17. It was necessary to look back through historical data for policies in-force at the implementation date to determine what the initial CSM would have been for each, and how it would have been written down. There were challenges for insurers in terms of capturing the appropriate historical data and performing these retrospective calculations.

The transitional arrangements helped to alleviate these challenges to some extent.

There were three possible approaches to determining the transitional balance sheet.

- **Full Retrospective Approach (FRA) – this had to be used if it was practicable to do so and involved determining the position at transition as if IFRS 17 had applied throughout the full policy lifetime.**

If it was not possible to use an FRA basis, for example due to lack of historical data availability for older policies, then two alternative approaches could be used:

- **Modified Retrospective Approach (MRA) – this is a simplified version of the FRA calculations, using reasonable information that was available without excessive cost or effort to produce a result as close as possible to a full retrospective calculation.**
- **Fair Value Approach (FVA) – where there was not sufficient information to carry out an MRA calculation, a company could determine the transitional CSM using the fair value of the policies less the fulfilment cashflows at transition date.**

  This means the excess of fair value over the sum of the BEL and RA.

2.5 Accounting for investment contracts

The cashflows arising under unit-linked investment contracts are separated into an investment management services component, measured in accordance with IAS 18 *Revenue*, and a financial instrument component, measured in accordance with IFRS 9 as described below.

In practice, this means that the accounting for these contracts differs from the accounting for unit-linked insurance contracts.

For unit-linked investment contracts, the financial instruments are the assets backing the unit fund (including any options and guarantees) and the investment management services component would contain any annual management charges, bid / offer spreads, surrender penalties, *etc,* as well as the costs incurred in managing the unit-linked contract.

2.6 Accounting for financial instruments

Accounting for financial instruments is currently contained in IFRS 9. IFRS 9 specifies how an entity should classify and measure financial assets, financial liabilities and some contracts to buy or sell non-financial items.

An example of the latter would be a futures or forward contract.

Under IFRS 9 the default measurement is that changes in fair value are recognised in profit and loss as they arise ('FVPL'), unless restrictive criteria are met for classifying and measuring the asset at either amortised cost or fair value through other comprehensive income ('FVOCI').

FVPL stands for 'fair value through profit and loss'. The 'other comprehensive income' is referring to items of revenue that are not recognised as profit or loss in the IFRS accounts, for example some types of unrealised gains and losses.

This IFRS 9 approach is consistent with a move towards more 'market-consistent' recognition. Assets are mainly measured in the balance sheet at fair value (*eg* market value, if there is a deep and liquid market), with changes in that value coming through the accounts as profit (or loss).

Chapter 16 Summary

IFRS

The IFRS standards (produced by the IASB) are the most widely adopted accounting standards in the world. EU regulations require that all listed companies use them when preparing their consolidated financial statements.

The main IFRS standards of particular interest to life insurance companies are:

- IAS 1 *Presentation of Financial Statements*
- IFRS 17 *Insurance Contracts*
- IFRS 9 *Financial Instruments*
- IFRS 7 *Financial Instruments: Disclosures.*

The IFRS accounting standards are principles-based. Fair representation, going concern, accruals based, comparability, compliance, reporting period, understandability and offsetting are the main principles underlying the standard.

Different standards apply depending on whether the policies are classified as insurance contracts or investment contracts.

IFRS 17 Insurance Contracts

IFRS 17 came into effect on 1 January 2023. It describes three valuation methods, the most relevant of which to life insurance are:

- the General Measurement Model (GMM) (or Building Block Approach (BBA)) – which has four liability components:
  - the fulfilment cashflows
  - the time value of money
  - the risk adjustment (RA)
  - the contractual service margin (CSM)
- the Variable Fee Approach (VFA) – which may be used for contracts in which the cashflows vary in line with the value of a pool of assets (*eg* unit-linked, with-profits).

To reduce the implementation burden, transitional arrangements were available when IFRS 17 came into effect. The three possible approaches were:

- Full Retrospective Approach (FRA)
- Modified Retrospective Approach (MRA)
- Fair Value Approach (FVA).

Accounting for investment contracts

The cashflows arising under unit-linked investment contracts are separated into:

- an investment management services component – measured in accordance with IAS 8 *Revenue*
- a financial instrument component – measured in accordance with IFRS 9 *Financial Instruments*.

Accounting for financial instruments

Under IFRS 9 *Financial Instruments*, the default measurement is that changes in fair value are recognised in profit / loss as they arise.

US GAAP

US GAAP is the set of generally accepted accounting principles adopted by the US Securities and Exchange Commission (SEC). The main related guidance is produced by the Financial Accounting Standards Board (FASB).

US GAAP is largely principles-based, with some differences from and some similarities to IFRS.

The main underlying principles are:

- fair presentation
- going concern
- compliance
- historical cost
- revenue recognition
- matching
- full disclosure
- objectivity
- consistency
- offsetting.

16.4 ***Advantages***

Although there are differences, IFRS 17 is more aligned with Solvency II than Solvency I. [½]

For example, both IFRS 17 and Solvency II involve best estimate cashflow projections … [½]

… and risk margin calculations. [½]

Therefore, moving to using Solvency II in the financial statements for the interim period might usefully 'smooth' towards the eventual implementation of IFRS 17. [½]

There may be expertise acquired from the Solvency II development and implementation process that could be leveraged to produce both supervisory reports and statutory accounts. [½]

The companies may have employed external contractors to help with Solvency II implementation and may have sought their advice with respect to enabling the same results to be used for the financial statements. [½]

There might be improvements to the companies' reported financial position / profits relative to using the Solvency I methodology … [½]

… *eg* due to the release of the prudential margins in liabilities. [½]

This could help the companies to look more attractive as an investment opportunity / support their share prices. [½]

Analysts and other users of the accounts might have become more familiar with Solvency II methodologies and therefore would prefer to see them used in the accounts as well … [½]

… particularly in terms of the greater transparency. [½]

Disadvantages

Switching to a new approach means that prior results are no longer consistent, so it may be harder (at least initially) for users to judge companies' performance. [½]

Two switches are required, as the companies would still have to move to IFRS 17 when implemented. [½]

This would require significant additional work, including communication with shareholders and analysts ... [½]

… and the company might choose to focus its available resources on IFRS 17 implementation. [½]

It is likely that the timeframes required to complete the financial statements are shorter than those of Solvency II. Therefore, the latter results might not be produced in time to be used directly in the accounts – and accelerating their production could require additional modelling development. [1]

The move to Solvency II might cause more volatility in results from year to year … [½]

… due to being more of a market-consistent approach / no longer having prudential margins that could be released or increased to 'smooth' results. [½]

[Maximum 6]

23

Problem solving

Syllabus objective

There are no explicit syllabus objectives covered in this chapter. However, the Subject SA2 Syllabus indicates that:

Students will be expected to be able to apply knowledge and skills from across the syllabus topics to scenarios and questions proposed by the examiners and produce coherent solutions and actions, including:

- analysing complex problems in terms of actuarial, economic and financial factors to a level where appropriate analytical techniques may be used
- assessing the implications and relevance of such factors, integrating the results into a coherent whole
- evaluating the results critically in a wider context, drawing appropriate conclusions
- proposing solutions and actions, or a range of possible solutions and actions, based on this evaluation.

(This syllabus statement is partly covered in this chapter.)

0 Introduction

As part of their preparation for the assessment, students must demonstrate knowledge and understanding of the subject as a whole, in order to apply and produce solutions relating to life insurance as follows:

- **combine ideas across the chapters of the Subject SA2 Core Reading and apply them to the scenarios proposed by the examiners**
- **analyse hypothetical examples and scenarios in relation to the application of life insurance principles**
- **propose solutions and actions that are appropriate to the given context, and balance benefit against inherent cost, with justification where required**
- **suggest possible reasons why certain actions have been chosen**
- **assess the implications of actions within a given scenario**
- **discuss the advantages and disadvantages of suggested actions, taking into account the perspectives of different stakeholders.**

Examiners will expect candidates to be able to apply the knowledge and understanding they have developed through the study of the Core Reading for this subject, to produce coherent solutions and actions in relation to the financial management of a life insurance company.

Solving problems is a vital skill for an actuary in their day-to-day work. Or rather, it is a range of skills. First, the problem has to be identified and analysed, and its full implications understood in a business context. Possible solutions must be proposed and evaluated, their merits and risks assessed. Any resulting advice must be communicated clearly and unambiguously.

It is these skills that the examiners will be particularly seeking to test in the Subject SA2 examination.

In the introduction to this subject, we introduced the higher-level skills that are needed to pass Subject SA2, namely:

- analysis
- synthesis
- critical judgement
- communication.

The aims of this chapter are:

- to help you to develop these skills
- to explain how to apply the skills when answering an exam question
- to show, with an example question, how to apply the skills and answer the question
- to give you some hints and tips on how to develop the skills further.