Subject F102

CMP Upgrade 2022/23

CMP Upgrade

This CMP Upgrade lists the most significant changes to the course 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 2022 CMP to make it suitable for study for the 2023 exams. It includes replacement pages and additional pages where appropriate. Alternatively, you can buy a full replacement set of up-to-date Course Notes at a significantly reduced price if you have previously bought the full price Course Notes in this subject. Please see our website for more details.

This CMP Upgrade contains:

- all changes to the Syllabus objectives
- the most significant changes to the ActEd Course Notes, Series X Assignments and Question and Answer Bank.

1 Changes to the Syllabus objectives

An additional bullet point has been added to Objective (f) as follows:

(f) Discuss how the following can be a source of risk to a life insurance company:

- policy and other data
- mortality and morbidity rates
- investment performance
- expenses, including the effect of inflation
- withdrawals
- mix of new business by nature and size of contract, and by source
- volume of new business
- guarantees and options
- competition
- actions of the Board of directors or staff
- actions of distributors
- failure of appropriate management systems and controls
- counterparties
- legal, regulatory and fiscal developments
- fraud
- aggregation and concentration of risk including credit failure
- climate risks.

2 *Changes to the Course Notes*

This section contains the most ***significant*** changes to the Course Notes. However, if you wish to have all the changes to the ActEd Course Notes you will need to buy a full replacement set of the up-to-date version (which you can do at a significantly reduced price if you have previously bought the full price Course Notes in this subject).

Throughout the course, references to ‘his or her’ have been amended to ‘their’.

Study Guide

You should download a new copy of the F102 Study Guide from our website, acted.co.uk.

Chapter 8

Section 1.1

The fourth paragraph of ActEd text on page 7 has been amended as follows:

The insurer may wish to reduce (or increase) its <u>available</u> capital at times, and so may make further (gradual) adjustments to existing policies’ asset shares to this effect – *ie* net <u>additions</u> (or net <u>reductions)</u> to asset shares.

Section 1.3

The last paragraph of ActEd text on page 10 has been amended as follows:

How the asset share moves after inception will depend primarily on how the <u>four</u> major components of <u>premiums</u>, renewal expenses, investment income and cost of life cover all balance out. In the example above, <u>premiums and</u> investment income <u>were</u> greater than the other items and so the asset share <u>increased.</u>

Chapter 12

Section 4

New material has been added to the end of Section 4 on page 14 as follows:

Climate change related regulations

There is widespread concern among policymakers and financial regulators of the damage that climate change could cause to the financial system and, conversely, the role that the financial system can play in achieving an orderly transition to a low-carbon economy.

Chapter 14 looks at how climate change can pose a risk to financial companies.

Financial companies can assist in the transition to a low-carbon economy by investing in companies that develop new, greener technologies for example.

In order to limit the impact of climate change on the financial systems, regulations are under development whose aims include ensuring that financial institutions:

- **consider climate risks in existing business planning, investment management and risk management processes**
- **effectively disclose and report on climate-related risks and opportunities**
- **adopt a consistent and reliable means of assessing, pricing and managing climate-related risks.**

At the moment, many insurers have made a voluntary commitment to address the impact of climate change, although future regulation may require all insurers to take action. For example, a number of insurers have signed up to the United Nations-convened net-zero asset owner alliance which commits to moving asset portfolios to net-zero greenhouse gas emissions by 2050.

Summary

The following has been added at the end of the section on "The regulatory regime" on page 22:

Regulations are under development that aim to limit the impact of climate change.

Chapter 13

Syllabus objective

Climate risks have been added to the syllabus objectives.

Chapter 14

Syllabus objective

Climate risks have been added to the syllabus objectives.

Section 11 and Summary

A new section has been added that covers climate change risks. This has also been added to the end of the Summary. Replacement pages are attached.

Chapter 15

Syllabus objective

Climate risks have been added to the syllabus objectives.

Chapter 16

Section 2

The last paragraph of ActEd text on page 3 has been amended as follows:

This excess of units facilitates the management of the fund, and so is also often referred to as the "management box" or "manager's box". <u>On some days there may be more policyholders selling units, while on other days there may be more policyholders buying units. If the company varies the number of units it owns in the box, it can reduce the need to cancel or create units each day.</u>

Chapter 20

Section 1.13

New material has been added to the end of Section 1 on page 12 as follows:

2.1 Sustainable investment options

Increasing focus is being placed on Environmental, Social and Governance (ESG) issues. The drivers for this are a combination of regulatory, marketing, and social responsibility.

A company needs to consider the sustainability of investment options when designing products.

Chapter 14 discusses how climate change could cause investments in fossil fuels and carbon-intensive industries to lose value.

As well as the environmental impact on investments, ESG considers social factors such as the working conditions of the employees of the companies that are invested in and governance factors such as the accounting standards used by these companies.

For example, an insurer might be considering an investment in the shares of a company involved in the fossil fuels industry. The insurer would need to consider the extent to which it felt that this industry was sustainable when estimating the likely returns that it would make on this investment. This could impact on the design of the charges and guarantees for the contract. The insurer would also need to consider the reaction of potential policyholders to this investment when assessing the marketability of its contracts.

Summary

'Sustainability of investment options' has been added to the bullet point list.

Solutions

The fifth point in the solution to the specimen exam question on page 24 has been amended to:

Are the fund links attractive, <u>sustainable</u> and is there enough choice? [½]

3 Changes to the Q&A Bank

Overall

There have been minor changes throughout the Q&A bank, including changes to mark allocations.

More significant changes are listed below.

Q&A part 2

Solution 2.5

The following point has been added at the end of the section headed "Risks from investment":

The consequences of climate change can also lead to investment risk, *eg* stricter regulations on pollution may reduce the profits of some industrial companies. [½]

Q&A part 3

Solution 3.10

The following point has been added in part (ii):

You may wish to invest in sustainable industries to avoid negative publicity if the competition also invests sustainably (or if you want to differentiate from the competition if they do not invest sustainably). [½]

Solution 3.13

The following point has been added in part (i):

The sustainability of the assets within the funds will impact their likely returns and the attractiveness of the product to some potential policyholders. [½]

Q&A part 6

Solution 6.14

The following point has been added to the second bullet point list in part (iii):

- Environmental, social and governance issues. [½]

Q&A part 7

Solution 7.5

The following point has been added under the heading "Risk and returns" in part (iii):

The company should consider Environmental, Social and Governance (ESG) issues, *eg* the sustainability of the companies invested in will affect the asset returns and any ethical issues regarding the companies invested in may impact the insurance company's reputation. [1]

4 Changes to the X assignments

Overall

There have been minor changes throughout the assignments, including changes to mark allocations.

More significant changes are listed below.

Assignment X2

Solution X2.7

The following point has been added at the end of the section headed "Investment risk":

The company should take particular care with regards to the potential for climate change to negatively impact its investments. [½]

Assignment X3

Solution X3.4

The following two points have been added for step 1:

- risk appetite of policyholders
- preferred funds (*eg* equities, property, bonds, mixed)

Step 4 has been rewritten as follows:

- start with a charging structure
- <u>project unit fund …</u>
- <u>… allowing for unit cashflows, *ie* premiums plus investment return less charges</u>
- <u>project non-unit fund …</u>
- <u>… allowing for non-unit cashflows, *ie* charges plus investment return less expenses less any claims in excess of unit fund</u>
- project supervisory profit, by allowing for supervisory reserves
- allow for any supervisory <u>capital requirement</u>
- <u>allow for any taxes payable</u>
- compare profit measure (*eg* net present value) against profit criterion
- repeat for different charging rates until profit criterion met.

[½ per point, maximum 3]

5 Other tuition services

In addition to this CMP Upgrade you might find the following services helpful.

Subject F102 is similar to Subject SP2 and the principal differences are outlined in the Subject F102 study guide.

5.2 Study material

We offer the following study material in Subject SP2:

- Mock Exam
- Additional Mock Pack
- ASET (ActEd Solutions with Exam Technique)
- Mini-ASET
- Revision Notes
- Flashcards
- Online Classroom.

For further details on ActEd's study materials, please refer to the 2023 *Student Brochure*, which is available from the ActEd website at **ActEd.co.uk**.

6 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 **SP2@bpp.com**.

11 *Climate change risks*

Climate change risks could arise from adverse changes in the physical environment and secondary impacts in the economy at a regional or a global scale.

Climate risks for financial companies are categorised into physical, transition and liability risks:

- **Physical climate risks are the first-order effects of environmental changes such as greenhouse emissions, pollution and land use. An examples of physical climate risks could be an increase in mortality or morbidity in an insured population due to global warming or pollution.**

  So physical risks could impact an insurer by increasing the number of claims, but could also impact it in other ways, *eg* an increase in storms or floods could damage infrastructure that the insurer holds as an investment.

- **Transition risks refers to economic, political and market changes as a result of efforts to mitigate climate change. An example of climate transition risks could be policy changes designed to reduce fossil fuel consumption (*eg* taxes, subsidies, limitations) resulting in investments in fossil fuels and carbon-intensive industries losing value.**

  So we might expect falling profitability for some sectors of the economy, particularly if they have a large carbon footprint. Indeed, some investments may become 'stranded assets' and lose all their value, *eg* coal mining if there was a ban on the use of coal-fired power stations. In contrast though, some sectors of the economy may see increased profitability, *eg* companies specialising in new greener technologies.

- **Climate liability risks can arise from injured parties seeking compensation for the impacts of climate change. An example of climate liability risks could be a link established between air pollution and adverse health conditions, resulting in a new class of latent claims.**

  Life insurance companies may face legal risks such as mis-selling if they fail to take into consideration their policyholders' preferences with regards to sustainable investment.

12 Specimen exam questions

At the end of many of the chapters we have included a specimen exam question for you to attempt. The first one of these is on the next page; thereafter they appear in more and more chapters as you cover an increasing proportion of the course material.

We suggest two different ways that you might wish to use these questions to help you progress through the course:

(1) You could attempt the questions as soon as you reach them in your studies. You may find them quite difficult on the first attempt, especially the early ones, and we would expect you to refer back to the course notes in order to answer them. By tackling them as you go through the course, however, you will get to know more quickly the level you need to be aiming for in order to pass the Subject F102 exam. But you should not be worried if your answers appear far from perfect on these first attempts.

(2) Alternatively you could miss them out until you get to the end of Part 2. At this point you should be aiming to tackle a good sample of questions from the Question and Answer Bank prior to attempting the relevant assignment, as usual. Immediately before the assignment you could go back and attempt all the specimen exam questions from these first three parts, which should help your preparation for tackling the assignment.

Repeat this at the end of Part 3, using all the specimen questions in that part, and so on for all remaining parts of the course.

Whichever of these you follow, you are likely to benefit from a fresh second attempt at these questions as part of your revision. On these second attempts you should be looking to do the questions under exam conditions, and strictly within the time available according to the number of marks for the question (remember that 1 mark = 1.8 minutes of exam time!). We suggest you don't try all the questions in one sitting (that would be a horrendously long exam paper!) but tackle them one at a time once you feel you have fully revised the topics involved.

Of course you may wish to use the questions in other ways: the above are just suggestions!

Specimen Exam Question

A life insurance company has successfully been selling a unit-linked single premium savings contract through independent intermediaries. The company is now considering introducing a new unit-linked regular premium savings contract in order to appeal to an even wider range of investors. The following design is being considered:

- Fund management charge: 1% per annum.
- Minimum annual premium: £2,000.
- Minimum term: 10 years.
- Surrender penalty: $0.5 \times (x + 10 - y)\%$ of the face value of the units at the date of surrender, in first ten years only (x = entry age, y = age at surrender).
- All charges are guaranteed for the duration of the contract.
- The face value of the units is payable on survival to the end of the term or on earlier death.

Describe the risks to the insurance company from launching this product. [14]

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Chapter 14 Summary

The following are some of the risks faced by a life insurer:

The mix of business by nature and size of contract

The unpredictability of the mix of new business by nature and size of contract is a risk for the insurer.

Examples of a contract's nature are: class of business, type of contract, contract design, and premium frequency.

Unexpected variation in nature or size may change the risk profile of the company, which may lead to an overstretching of the company's capital and other resources available to cover the risk.

Coverage of per-policy expenses is particularly vulnerable to a reduction in the average size of policies issued.

The mix of business by source

Different distribution channels involve different sales methods and reach different populations. As a result, the demographic and expense experience of the various channels is likely to differ. Variation from the insurer's assumed mix by source could therefore invalidate the insurer's demographic and expense assumptions.

The volume of business

Insurers may experience difficulties as a result of:

- too much business, so that its capital resources or administrative capacity are exceeded, or
- too little business, so that it fails to cover its overhead expenses.

Guarantees and options

To calculate the cost of guarantees and options, a life insurance company will use a model. Model, parameter and random fluctuations risks therefore occur.

Competition

The need to compete may lead management to take unacceptable risks. This might involve decisions to:

- reduce premium rates or charges under new business contracts,
- offer additional guarantees and options under new business contracts,
- increase bonuses under existing contracts
- increase salaries or commissions in the respective distribution channels
- keep charges too low under existing, reviewable, contracts.

The management of the company

Management risks can arise because:

- the directors have made a conscious decision to ignore sound risk-management advice in pursuit of other competing aims
- the control systems in place are inadequate or are not properly followed.

Mismanagement can lead to financial losses, regulatory intervention, and damage to the company's reputation.

Distributors

Distributors may:

- encourage lapse and re-entry where this favours the policyholder
- take advantage of loopholes in product design
- take advantage of timing loopholes in unit pricing practices.

Fraud

Directors, staff, policyholders and even external parties can all perpetrate fraud and so cause loss to the insurer.

Counterparties

If an insurer has an agreement with another entity then it faces the risk that the entity either fully or partially defaults on their obligations or performs them to an unacceptable standard. This is counterparty risk.

Legal, regulatory and fiscal risks

Future changes to any of these can adversely affect the insurer and/or its policyholders (see also Chapter 12).

Climate change

Climate change risks could arise from adverse changes in the physical environment and secondary impacts in the economy.

Climate risks for financial companies are categorised as:

- physical risks
- transition risks
- liability risks.

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