

# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINERS' REPORT**

September 2018

### **Subject ST2 – Life Insurance Specialist Technical**

#### **Introduction**

The Examiners' Report is written by the Principal Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Mike Hammer  
Chair of the Board of Examiners  
December 2018

**A. General comments on the *aims of this subject and how it is marked***

1. The aim of the Life Insurance Specialist Technical subject is to instil in successful candidates the principles of actuarial planning and control, and mathematical and economic techniques, relevant to life insurance companies. The student should gain the ability to apply the knowledge and understanding, in simple situations, to the operation, on sound financial lines, of life insurance companies. The life insurance products covered by this subject exclude health and care insurance products covered by the Health and Care Specialist Technical subject.
2. The Examiners' Report covers more points than would be expected to get full marks. This is so that alternative approaches to questions by different candidates can be accommodated. The Examiners will also award marks for valid points that are not included in the marking schedule.
3. Candidates are expected to show knowledge of the relevant content of the Core Reading, and be able to apply this knowledge where appropriate.

**B. General comments on *student performance in this diet of the examination***

Questions that focussed on knowledge of the Core Reading were generally well answered by well-prepared students, with stronger candidates able to apply the theory where it did not tie directly to the original bookwork, e.g. question 2 and question 3 part (ii).

In the higher mark application questions, stronger candidates generated the required breadth of points rather than focussing on a smaller number of themes, e.g. questions 1 and 6, and reflected the specifics of the question in their answers, e.g. in question 5 part (ii) and question 7 part (i).

When marking was complete, it was clear that candidates found the exam harder than the examiners had expected. As a result, an upward adjustment was applied to every candidate.

**C. Pass Mark**

The Pass Mark for this exam was 55.

**Solutions** [Note the marking is done out of 200]

**Q1**

- The asset share may be less than the guaranteed amount of the policy at the point of the payment... [2]  
... for example through guaranteed bonuses being higher than asset share at maturity... [1]  
... or through guaranteed death benefits exceeding asset share. [1]  
The policy benefit may have been set by reference to the smoothing policy... [2]  
... which may be higher or lower than the unsmoothed asset share [1]  
The smoothed  
The policy benefits may have been set by reference to an average or sample policy... [2]  
... that differs from the individual policy in question. [1]  
Payouts to policyholders may be net of any policyholder tax due. [1]  
The policy may have been surrendered early in the term when the asset share was negative or low. At this point the company may apply an alternative approach [2]  
A prospective valuation method may be used to determine surrender values. [1]  
There may be a contractual penalty on exit, for example a surrender charge (*note MVAs are not applicable here*) [1]  
The company may calculate its surrender values using a simpler approach than asset share. [1]  
The company may distribute its estate of profits via a method other than asset share enhancement... [2]  
... for example by paying a demutualisation bonus ... [1]  
... or by use of the revalorisation method. [1]  
When setting final bonus rates, assumptions will be made about the investment return achieved from the time the bonus rates are calculated to the time the payout is likely to be made... [1]  
... actual investment returns reflected in the asset share at the point of claim may differ to those assumed. [1]  
The company may have limited information which leads to a need to approximate the asset share [1]  
The company may have made an error in the calculation of the payout that causes it to differ from the asset share. [1]  
**[Total 10]**

*This question was a differentiator between candidates - a wide range of possible reasons was required to score well, considering both surrender and maturity values. Stronger candidates provided more detail on possible reasons relating to specific elements of the asset share calculation.*

**Q2**

**Cash bonus...** [1]  
**... or premium reduction** [1]

Given the policyholder is able to withdraw funds and reduce premiums anyway... [1]  
 ... it is unnecessary to allocate surplus in this way. [1]  
 However, given the flexibility of the contract... [1]  
 ... the company could give this as an option. [1]

**Addition to benefits** [1]

**Conventional with profits approach** [1]

This is unlikely to be suitable... [1]  
 ... since there is unlikely to be a basic benefit which does not change ... [1]  
 ... on which to base the bonus allocation. [1]  
 Allowing for the flexibility of the contract using this approach would be complicated. [1]

**Accumulating with profits approach** [1]

This approach would be suitable... [2]  
 ... because it suits a product design like this, which has a variable underlying basic benefit amount... [1]  
 ...assuming that withdrawals could be treated as negative premiums. [1]

Bonuses are added in relation to the premiums paid to date plus previously declared bonuses (alternatively: to the current fund value)... [1]  
 ... meaning bonuses are not dependent on having a fixed basic benefit [1]

**Revalorisation method** [1]

This is unlikely to be suitable ... [1]  
 ...since this requires there to be a level premium and benefit level which does not change on which to base the bonus allocations, which is not the case here. [1]  
 To distribute the surplus, the benefit under the contract and the premium payable by the policyholder are increased by the same amount. [1]  
 The policyholder could then opt to reverse the premium increase. [1]

**Contribution method** [1]

This is unlikely to be suitable... [1]  
 ... since to distribute the surplus, the benefit under the contract is usually fixed and the allocation of the profits is linked to this fixed benefit. [1]  
 A cash payout approach (if used) is not a desirable feature as the policyholder is permitted to withdraw from the contract. [1]

**[Total 20]**

*This question was generally not well answered. Many candidates focused on describing the available distribution methods rather than focusing on their suitability for the flexible contract. Stronger candidates made the distinction between the conventional and accumulated accumulating with profits methods and identified the latter as more appropriate.*

### Q3

- (i) The appropriation price is the amount of money per unit put into a unit-linked fund for each new unit appropriated. [1]  
 In other words...  
 ... the amount of money the company should put into the fund per unit created in order to preserve the interests of the existing unitholders. [1]  
 ... the amount of money the company should put into the fund per new unit created so that the net asset value per unit is the same after as before the appropriation. [1]  
 [Total 2]
- (ii) Market value should be as at the valuation date of 31st May, not the start of the year. [1]  
 Expenses should only relate to transactional costs of equities in the unit linked fund, not all equities owned by the company. [1]  
 No allowance has been made for any current liabilities. [1]  
 For example,  
 • any loans to the fund,  
 • any investments purchased but not yet settled etc.  
*[Award up to 2 marks for any valid examples.]* [2]  
 Current liabilities should be deducted from the market value. [1]  
 The final unit price should be divided by the number of units before any new units are created, not after. [1]  
 [Total 6]
- (iii) The company will need to put in place resources to correct the error [1]  
 The company will need to determine the size and extent of the error (e.g. how long the error has taken place for, how many funds are impacted)... [1]  
 ... if the error is not material then the company may decide not to correct it [1]  
 ... if the error is particularly material then the company may need to inform the regulator and agree an approach to rectify the situation. [1]  
 The company will need to consider which policyholders have been impacted... [2]  
 ... including those currently invested, [1]  
 ... those who surrendered/claimed, [1]  
 ... and those who have switched into other funds. [1]  
 Determine the value of the policy with the errors corrected, either now or at the time the policyholder surrendered/claimed/switched... [1]  
 ... and make retrospective adjustment to policyholder's unit funds. [1]  
 The company will need to determine whether policyholders were positively or negatively impacted by the errors. [1]  
 Determine how to reimburse policyholders if negatively impacted... [2]  
 ... the approach taken may vary between existing and previous policyholders (e.g. enhancement to units for existing, cash to previous) [1]  
 There may be a de-minimis/tolerance level set at customer level, below which the customer is not corrected. [1]

Past communications and previous practice will need to be taken into account.

[1]

Need a communication to policyholders.

[1]

Consider impact on solvency of the company.

[1]

[Total 10]

*Parts (i) and (ii) were generally well answered, with most candidates being able to provide the definition in (i) and identify most of the calculation errors in (ii).*

*Part (iii) was less well answered – a number of candidates were not able to add to their answer provided for part (ii), and didn't consider the wider issues of how policyholders would be impacted and what the company would need to do. Stronger candidates considered the implications of policyholders no longer being in the fund due to switching / surrender / maturity.*

**Q4**

- (i) The embedded value is the value of the future profit stream from the company's existing business... [1]  
 ... together with the value of any net assets separately attributable to shareholders. [1]  
 [Total 2]

- (ii) The embedded value would be calculated as the sum of
- a) The present value of future shareholder profits on the existing business within the non-profit fund... [2]  
 ... with no allowance made for new business [1]
  - b) The shareholder owned net assets in the non-profit fund. [2]
  - c) The full value of the shareholder fund. [1]

The net assets are defined as the excess of assets held over those required to meet liabilities. [2]

Assets may be valued at market value or may be discounted if they are required to be retained within the fund to cover solvency capital requirements. [1]

There is no embedded value the with profits fund as all future profit belongs to the policyholders... [1]

...and there are no net assets belonging to shareholders in the with profits fund. [1]

An appropriate basis must be determined for the embedded value calculation (e.g. best estimate assumptions)... [2]

... including an appropriate discount rate to determine the present value of future profits [1]

In the non-profit fund the future profit on the conventional without profit business comes from:

- the difference between premiums plus investment income [1]
- less claims and expenses [1]
- plus the release of supervisory reserves. [1]

For the unit-linked business the profit arises from:

- charges less expenses [1]
- less benefits in excess of the unit fund [1]
- plus change in non-unit reserves (e.g. investment income, reserve release over time) [1]

The embedded value for the non-profit fund is effectively the release of margins in the statutory valuation basis... [1]

... relative to the embedded value basis. [1]

Tax should be allowed for in the embedded value calculation if appropriate. [1]  
 [Total 16]



- (iii) Alternatively if the With Profit fund was part owned by the policyholders and part owned by the shareholders:

The embedded value element for the non-profit fund would remain unchanged. [1]

The shareholder fund's contribution to the embedded value would remain unchanged. [1]

10% of the free assets within the fund belong to the shareholders. [2]

10% of the future distributions of surplus (i.e.  $1/9^{\text{th}}$  of future policyholder bonus) will go to the shareholders [2]

These would both be included in the embedded value. [1]

The present value of a projection of future bonuses would need to be determined [1]

... including distribution of the with profit funds estate over the remaining lifetime of the existing policies. [1]

[Total 6]

*Parts (i) and (ii) were answered reasonably well, with most candidates able to provide the definition on (i) and some detail of the calculation in (ii). Stronger candidates tailored the definition in (ii) to the question and avoided describing the With Profits fund as part of the embedded value.*

*Answers to part (iii) generally lacked the detail needed to obtain the higher marks. Most candidates identified that a share of future bonuses would be included in the embedded value, but not a share of the estate.*

**Q5**

(i) **Policyholder**

**Advantages**

- The policyholder has more control/freedom over the investment strategy. [2]
- Purchase of a conventional annuity will usually imply investment in fixed interest. [1]
- For policyholders with a high investment risk appetite, or those with other guaranteed income sources, this will be attractive... [1]
- ... as a riskier investment strategy can be adopted [1]
- By choosing higher risk unit-linked funds, the policyholder would expect the resultant income to generally increase over time. [2]
- The ability to alter the unit-linked fund will help the policyholder manage their investment risk as circumstances change. [1]
- Higher returns may help mitigate the effects of inflation. [1]

**Disadvantages**

- The policy is more complex than a regular annuity which may lead to the policyholder misunderstanding the contract... [1]
- ... this may lead to inappropriate investment decisions and poor returns.. [1]
- ... and as policyholders age they may become less able to manage the policy. [1]
- Investment freedom may be limited by only being able to invest in one fund at a time [1]
- The policyholder no longer has certainty over the amount of income. [2]
- There is a risk of lower than expected income... [2]
- ... this is particularly a risk for policyholders where this is their main/sole income source. [1]
- The income will now be more variable and may lead to differences in tax from year to year, [1]
- If the Company applies charges through the unit-price, the policyholder may end up paying more in charges. [1]
- Policyholders may require financial advice to purchase or manage the policy and this will come with an additional cost. [1]

[Total 10]

(ii) **Company**

**Advantages**

- If new in the market, it could prove popular with high net worth customers. [1]
- Unit linked policies could be more profitable to the company... [2]
- ... due to higher charges [1]
- ... and/or larger policy size (e.g. high net worth clients) [1]
- ... and/or the product being popular and generating large business volumes, reducing per policy cost. [1]
- Good investment risk may attract more policyholders [1]
- The Company is no longer bearing the investment risk passed to the policyholder... [2]
- ... and so capital requirements may be lower. [1]

**Disadvantages**

Marketing effort / cost will be greater...	[1]
... as the greater complexity of the product (and possible use of financial advisers) means the product will be harder to sell.	[1]
There is a higher potential for mis-selling.	[1]
The market for such a product may be small...	[1]
... particularly when funds perform poorly.	[1]
This product will involve considerably more cost to run.	[2]
New business administration will be greater due to fund choice.	[1]
Ongoing administration will be greater, due to the switch facility	[1]
The tax treatment of annuities may be different to pensions requiring differently priced unit funds.	[1]
Administration systems will be more complex.	[2]
Leading to greater risk of errors.	[1]
There is a greater risk of the impact of mispricing unit funds, given there are now more unit linked products	[1]
There will be greater likelihood of complaints due to poor investment performance.	[2]
Thus there is greater risk of reputational damage for the company.	[2]
There is a risk of adverse regulatory scrutiny, particularly if issues arise.	[1]
There will need to be significant system development and training.	[1]
These costs may not be recouped.	[1]
Whilst investment risk is passed to the policyholder, some risk is retained if charges are linked to fund value.	[1]
Capital management will have to be in terms of units not cash...	[1]
... and so changes in capital requirements will be less predictable.	[1]
The company retains longevity risk, but this risk is now in terms of the units.	[1]
So greater longevity risk at a time of rise unit values exacerbates the longevity risk.	[1]
	[Total 16]

*Part (i) was generally answered well, with most students able to identify the key differences from a standard annuity which would be advantageous to the policyholder.*

*Part (ii) was also answered well. There was more differentiation between candidates in this part, with stronger candidates generally giving greater detail around reputational and operational issues.*

**Q6**

- (i) The model would start with the business in force. [2]  
 This may be on a policy by policy basis or using model points. [1]  
 It would also start with the current asset split, i.e. based on the current investment strategy. [1]  
 Free assets will be included. [2]
- The company also needs to incorporate future new business for the plan period. [2]  
 The new business is likely to be modelled using a series of model points... [1]  
 ... that are representative of the expected future mix of new business. [1]  
 The liabilities and the assets would then both be projected forward in order to determine the asset and liability cashflows [2]  
 ... on assumptions that represent best estimate expected future experience, [1]  
 ...although the company will want also to consider the effect of variations from these. [1]  
 It may need to consider any additional business plan expenses over and above those anticipated through expense allowances [1]  
 Or alternatively it may be able to reduce per policy expense assumptions to reflect the significant expected future new business growth. [1]
- The company would need to allow for the taxation basis within its projections [1]
- The appropriate period over which to assess investment strategy should be determined (e.g. the business plan period)... [1]  
 ... and the frequency of determining the asset/liability position in the projection should be decided upon (e.g. annually) [1]
- For the assets, stochastic investment models can be incorporated [2]  
 ...in order to project future investment income and changes in capital values. [1]
- Inflation rate models can also be used to project future expenses on the liabilities side. [1]  
 Dynamic assumptions should be used within the liability valuation basis which take into account the simulated investment conditions. [1]  
 The simulation exercise will also need to incorporate differing levels and mix of new business to assess. [1]  
 These are likely to be done using deterministic rather than stochastic approaches. [1]
- The company will also need to incorporate a projection of the solvency capital requirements on the regulatory solvency basis. [2]  
 The assets, liabilities and capital requirements will be valued taking into account the regulatory requirements... [1]  
 ... e.g. admissibility requirements [1]  
 The item of interest will be the excess of the value of the assets over the value of the liabilities [1]

This will need to be sufficient to cover comfortably the level of solvency capital required by the company. [1]

What is “comfortable” may depend on the level of cover provided in other companies [1]

The company's solvency risk appetite would also need to be considered. [1]

The stochastic model will produce a statistical distribution of the amounts available each year to cover the level of solvency capital required. [1]

From this, the probability of potential future insolvency can be estimated based on the current investment strategy. [1]

The simulations could also be used to determine the level of free assets that the company needs in order to support the current investment strategy... [1]

... and keep the probability of insolvency below an acceptably low figure. [1]

The probability of future insolvency will then be assessed against shareholders' risk appetite. [1]

If it fails to meet shareholder requirements, then the company will have to consider making the investment strategy more conservative. [1]

The effect of the investment strategy on future shareholder earnings and dividends should also be considered. [1]

In particular, the current investment strategy might meet probability of insolvency requirements but it might not maximise shareholder income [1]

Alternative investment strategies should therefore be modelled in the same way... [1]

... in order to maximise shareholder income whilst keeping the risk of insolvency sufficiently low [1]

The company may also be interested in the relative liquidity of assets... [1]

... so that it can finance additional new business strain from high volumes [1]

[Total 30]

(ii) To perform dynamic solvency testing. [1]

To demonstrate that supervisory solvency is met in future periods. [2]

To meet regulatory requirements to show this. [1]

To determine risk-based solvency capital requirements... [2]

... using a Value at Risk measure. [1]

To assess the ability of the company to withstand future changes in the external economic environment. [2]

To assess the ability of the company to withstand future changes in its experience. [2]

To determine requirements for future capital injections. [1]

To test the impact of alternative strategies. [1]

To determine possible future capital surpluses which could be used for alternative strategies. [1]

For example, launching new product lines / distribution channels. [1]

For merger/acquisition purposes. [1]

If the company writes with profits business, to determine the potential for a one-off special bonus distribution. [1]

Or a one-off special dividend to shareholders. [1]

To determine potential future dividend affordability / sustainability.	[1]
For credit rating purposes.	[1]
To feed back into its new business plans.	[1]
For resource planning.	[1]
For asset liability matching or assessing liquidity constraints	[1]
For risk management purposes...	[1]
... e.g. determining the cost/benefit trade-off of a possible risk mitigation approach.	[1]
To determine the profitability of existing business...	[1]
... e.g. on a market consistent basis.	[1]
It might even be possible to adapt the model for new business profit testing.	[1]
	[Total 16]

*Answers to part (i) generally lacked the required level of detail with most candidates providing a broad description of how a model would calculate a result, but only stronger candidates related this back to how the result would be assessed to determine whether the current asset strategy was appropriate.*

*Part (ii) proved difficult – a broad range of possible options was required to be considered with sufficient detail to differentiate them from one another. Stronger candidates considered areas other than solvency reporting and new business.*

**Q7**

- (i) *Question asks for additional risks – rather than all risks – hence given this is a large company it will already be exposed to a lot of the generic risks. Hence very limited marks for mentioning the generic risks.*

**Expenses and Inflation**

Premium rates are fixed and hence there is a risk that the expense loading within the premium is not sufficient to cover renewal expenses [2]

Initial expenses are only recovered via the expense loading, and the premiums in the first year. These may be insufficient to cover the initial expenses incurred [1]

.. including any allowance for development expenses of direct marketing channel [1]

Expense inflation included in premium allowances may not be sufficient [1]

**Mortality**

As this is a whole life plan then mortality is a risk in terms of timing only [1]

There is likely to be selection against the company by those with higher mortality [2]

... e.g. those with life expectancy of just over a year [1]

... e.g. more smokers than non-smokers [1]

... e.g. higher proportion of males than females [1]

The mortality assumptions would need to reflect the likely mix of business [2]

... and there is an increased risk that the mix assumed is not as expected, meaning mortality experience differs from assumptions [1]

The company may have limited experience in setting mortality rates for this type of product [1]

... and may not have appropriate data on which to base the assumptions [1]

... hence there is increased data risk [1]

**Persistency**

There is an increased risk of policies cancelling within the first year, hence not recouping initial expenses [2]

... hence there is a risk that persistency experience in year 1 are not as expected [1]

There may be a risk of lapse and re-entry if premiums at different ages are not set appropriately [1]

**New Business Volume and Mix**

If volumes are lower than expected then initial and development expenses are possibly not going to be recouped [2]

If volumes are higher than expected then administration processes may be put under strain... [2]  
 ... and potentially capital strain could arise. [1]

The mix of business assumptions may not be in line with actual experience [2]  
 ... in terms of sum assured [1]  
 ... in terms of splits of males/females or non-smokers/smokers [1]  
 ... or proportion of impaired lives [1]

### **Reputation**

The product terms introduce a number of reputational risks [1]  
 The lack of sum assured in year one may lead to complaints at claim stage [1]  
 Cancellation of the policy on missing one premium may lead to complaints [1]  
 There may be cases where the sum assured paid out is less than the premiums paid, if death occurs at older ages [1]  
 The sum assured is fixed and hence if funeral expense inflation is high then the ultimate benefit may not be sufficient to cover the needs of the beneficiaries [1]

The use of direct marketing would require the name/brand of the company to be well known and hence any reputation impacts from this product could influence the sales of other products [1]

### **Fraud**

Policyholders may lie about their age at outset (i.e. understate their age) and obtain a policy fraudulently [1]

There may be increased risk from fraudulent claims by beneficiaries [1]

Depending on the limits on the size of sum assured, there may be a potential for over-insurance, given there is no underwriting [1]

### **Competition**

There is a risk that premiums on this product are not competitive or features are out of line with competition... [1]  
 ... particularly as the product is directly marketed and likely to be highly comparable on price/features. [1]  
 This could lead to higher withdrawals [1]  
 ... or reduced new business volumes [1]

### **Other**

There will be operational risk associated with setting up new systems... [1]  
 ... and from new processes / staff training [1]  
 ... e.g. related to direct marketing [1]

Given this a large company then many of the generic risks will already be present. However, there will be an increase in



... the risks of management controls not operating correctly for this product [1]  
 ... the risks of actions of boards of directors [1]  
 ... the legal/regulatory/tax risks [1]  
 There may be an increase in counterparty risk if the company uses a reinsurer [1]  
 [Total 32]

(ii) **Underwriting inclusion**

**Mortality**

Adding an option would increase parameter risk in terms of mortality assumptions, given there would now need to be two sets of assumptions [2]

The assumptions for the standard plan would need to be revised to reflect the fact that those with better mortality will select the option... [1]  
 ... meaning the standard plan mortality may be materially worse than the current assumption. [1]

Adding the option may mean that parameter risk is reduced, given the mortality for those taking out the option may be more homogeneous [1]

**Expense**

Initial expenses will now require the inclusion of underwriting expenses [2]  
 ... thus there is an increase in expense risk [1]

There may be a need to include some underwriting at claim stage [1]

**Competition/Marketability**

The higher premiums that are likely on the standard plan will mean that competitiveness may reduce, [1]  
 ... which would reduce new business volumes and potentially not recoup development expenses. [1]

Depending on the rest of the market, this option may improve marketability to healthier lives [1]  
 ... and hence increase new business volumes overall and reduce the risk of not recouping development costs [1]

Adding underwriting may make direct marketing more difficult, potentially putting off new customers [1]

The company would need to decide what happens if underwriting is “failed” – does it offer the standard plan regardless [1]  
 ... this could lead to increased reputation risk [1]

**Other**

Fraud risk will increase with the potential for applicants to deliberately answer questions so that they get lower premiums [1]

## **Inflation Linked sum assured**

### **Parameter/Data**

- An inflation assumption needs to be set, increasing parameter risk [1]
- Data for an appropriate inflation index may not be sufficient [1]
- e.g. need a funeral expense inflation index [1]
- ... and need to project into the future [1]

### **Guarantee**

- The indexation increases the guarantee risk [1]
- ... and the risk that the index does not move in line with expectations increases [1]

### **Competition/Marketability**

- The option may improve competitiveness and marketability [2]
- .. and new business volumes may rise [2]
- .. leading to higher administrative or capital strain [1]
- .. whilst development costs will be spread over more business and reduce expense risk [1]
- ... or vice versa if the premium rates are not in line with competition [1]

### **Reputation**

- Actual funeral inflation may exceed the inflation index used to determine sum assured, leading to reputational risk [1]
- There could be an issue if there is negative funeral expense inflation – potentially increasing reputational risk [1]

### **Other**

- It may be difficult to find assets to hedge against funeral expense inflation, leading to a mismatch between assets and liabilities. [1]
- There may be increased expense risk if there is a need to communicate with policyholders each year regarding the increase in sum assured [1]

## **Both Options**

### **Administration**

- The addition of options will increase administration processes and systems [2]
- and management control risks [1]
- Take-up rates of the options may be different than assumed when setting up the contract, which could mean profitability differs from expectations. [1]
- The additional development required could have a knock on effect on development expenses, and increases the expense risk [1]

[Total 24]

*Part (i) was answered reasonably well, with stronger candidates providing additional detail around issues such as reputational risk, operational risk, and anti-selection.*

*Part (ii) was not as well answered, with only the strongest candidates providing the sought after detail and range of points. Stronger candidates considered both options separately and identified the risks specific to the options as well as the impact on risks considered in (i).*

## **END OF EXAMINERS' REPORT**