



Institute
and Faculty
of Actuaries

EXAMINERS' REPORT

SA2 - Life Insurance
Specialist Advanced

September 2023

Introduction

The Examiners' Report is written by the Chief 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.

For some candidates, this may be their first attempt at answering an examination using open books and online. The Examiners expect all candidates to have a good level of knowledge and understanding of the topics and therefore candidates should not be overly dependent on open book materials. In our experience, candidates that spend too long researching answers in their materials will not be successful either because of time management issues or because they do not properly answer the questions.

Many candidates rely on past exam papers and examiner reports. Great caution must be exercised in doing so because each exam question is unique. As with all professional examinations, it is insufficient to repeat points of principle, formula or other text book works. The examinations are designed to test "higher order" thinking including candidates' ability to apply their knowledge to the facts presented in detail, synthesise and analyse their findings, and present conclusions or advice. Successful candidates concentrate on answering the questions asked rather than repeating their knowledge without application.

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.

Sarah Hutchinson
Chair of the Board of Examiners
November 2023

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

On completion of the Life Insurance Specialist Advanced (SA2) subject, candidates should be able to demonstrate a detailed understanding of:

Life insurance market and other jurisdictions (as described in the core reading). This includes a detailed understanding of the current products sold, the underlying market demand and methods of distribution, as well as the regulatory and fiscal regime.

The principles and techniques of actuarial management and control, that are used in practice within the life insurance market and other jurisdictions (as described in the core reading).

The commercial issues, economic uncertainty and associated risks that underlie the life insurance market and other jurisdictions (as described in the core reading).

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. Whilst candidates are expected to show knowledge of the relevant content of the Core Reading, it is much more important in this exam to tailor answers and apply that knowledge to the specifics of the question than it is in earlier exams.

Candidates who make well-reasoned points, which are not in the marking schedule will receive credit where appropriate and relevant to the question asked.

B. Comments on *candidate performance in this diet of the examination.*

In some cases, it was noted that candidates did not read the questions properly. For example, in Question 1(i), the question emphasised that a valuation was required at a non-standard valuation date. Many candidates did not consider the difficulties that this would cause, nor the possible ways to resolve those difficulties.

In a similar way, candidates seemed to ignore key information provided in the question. Question 2 provided some numerical information in the rubric before parts (i) and (ii). Most candidates recognised that one item of that information was required for part (i), but some candidates overlooked the rest of the information and so missed out on relevant points for part (ii). If examiners include numerical information in the question, it should be assumed that it is necessary to provide a full solution to the question.

Candidates should tailor their answers to the specific question. Question 3(ii) should be approached in the same way as any other pricing question with the same items being considered. However, they should reflect the specifics of the product described. For example, the fact that the amount charged to cover costs was a proportion of the single premium and so there was no opportunity to match costs. Also, the pricing of the product was dependent on the pricing of assets that provided the benefits. For example, the call option price might vary over time and so would require either repricing or limiting volumes.

Breaking down the question into sections enables a more coherent and credible answer than a scatter-gun approach. For example, question 1(iv) was best answered by considering the benefit expectations and benefit security for the different groups of policyholders. Question 2(v) was best approached by considering the pros and cons of maintaining the existing administration arrangements and then the pros and cons of migration.

C. Pass Mark

The Pass Mark for this exam was 60
521 presented themselves and 179 passed.

Solutions for Subject SA2 - September 2023**Q1**

(i)

Producing reserves at a non-standard date will cause issues, for example:	[½]
How to extract the policyholder valuation data	[½]
and asset data	[½]
if the systems can't cope	[1]
It may that data is extracted at a normal valuation date and rolled forward	[½]
adjusting for actual offs/premiums etc	[½]
or if the opening balance sheet date isn't too dissimilar to a normal valuation date	
then will use the data from another more readily available date	[½]
but with a check on market movements to ensure no adverse movements between	
the dates	[½]
If they can't then the reserves may need to be produced at a normal valuation date	
and rolled forward / back	[½]
adjusting for policyholder and market movements	[½]
May use management information data to adjust for actual claims and so on	[½]
Management will need to consider the benefits of accuracy	[½]
versus the costs / practical issues	[½]
and whether a simplification such as a roll-forward approach is acceptable	[½]
Similarly, the firm will need to consider how to set assumptions at a different	
valuation date	[½]
and whether the data will be available, for example	[½]
market data	[½]
or whether assumptions from the previous valuation date are still appropriate	[½]
Need to understand local reporting methodology including training	[½]
and whether changes are needed to actuarial models and make them	[½]
or assumption setting methodology	[½]
and how similar to current Group reporting methodology	[½]
As the Group currently report on this basis there will be internal guidance available	[½]
There may be some new types of reserves required to be calculated	[½]
May need to train the Board of Company A on the new reporting basis so they	
understand the results	[½]
May not have the resources available internally	[1]

[Marks available 14, maximum 8]

(ii)

Will be subject to enhanced supervision	[½]
Need to have in place systemic risk management plans	[½]
Need to have enhanced liquidity plans	[½]
Need effective separation of non-traditional or non-insurance business (where	
feasible and appropriate)	[½]

(iii)

It will simplify the reporting process	[½]
as won't need to produce separate report and accounts for each fund	[½]
Reserves will only need to be split between the two funds	[½]
Data won't need to be split as granular	[½]
which overall may result in cost savings	[½]

and improved profitability	[½]
especially if processes can be simplified / aligned	[½]
which may reduce risk of errors in process / calculations	[½]
or due to overheads spread over more policies / economies of scale	[½]
Will avoid the need for separate teams producing reserves for the different funds	[½]
May result in headcount savings	[½]
May reduce total number of committees etc which will reduce costs	[½]
Some assumptions can be aligned which may simplify processes	[½]
which may be higher costs upfront, for example	[½]
For future methodology changes only need to change one model	[½]
There may be tax benefits of merging the funds	[½]
There may be investment management benefits from pooling of funds	[½]
and improved liquidity	[½]
diversifications of risks	[1]
which may reduce capital requirements	[½]

[Marks available 10½, maximum 5]

(iv)

Policyholder benefits and expectations:

All non-profit (NP) policyholders will expect their benefits to remain unchanged by the transfer [½]

for transferring with-profits (WP) policyholders this will mean that future bonuses in the fund

Should be in line with past expectations [½]

and the same for existing WP funds in Company B WP fund [½]

Consider impact on bonus strategy i.e. regular bonus / final bonus split [½]

and smoothing policy [½]

and surrender value approach [½]

or no worse off by the transfer [1]

which may mean policyholders gain from the transfer [½]

If there was an inherited estate in either WP fund then policyholder expectations [½]

around the distribution of this should be considered [½]

which may mean a distribution prior to the transfer of the liabilities to the new fund [½]

Need to consider the PPFM of company A [½]

Consider impact on investment strategy [½]

Customer service should be no worse [½]

Security of policyholder benefits:

Will need to ensure appropriate capital protection post the transfer / no worse than pre transfer [½]

to ensure future policyholders benefits can be met [½]

for policyholders in both companies [½]

Parent company may provide additional capital support [½]

The expert will need to see capital projections [½]

on a range of scenarios [½]

covering different economic [½]

and demographic assumptions [½]

to ensure solvency is not at risk in the future [½]

Expert may want to see expected impact of transfer on persistency rates [½]

and when persistency would be expected to return to normal levels [½]

Treating customers fairly (TCF):

The experts report will need to consider the TCF impacts for each group of policyholders separately	[½]
to ensure each group of policyholders is treated fairly post the transfer including recognising policyholder / shareholder split of each fund (any reasonable example)	[1]
Non-profit charges should be in line with TCF	[½]

Communications:

how to communicate the potential impacts to policyholders	[1]
	[Marks available 16, maximum 8]

(v)

The government could provide tax relief on premiums into pension products	[½]
This would incentivise customers to pay into their pension versus other investments	[1]
as they would get an uplift on their investment for the tax	[½]
particularly for higher tax rate earners	[½]
which may result in increased new business levels	[1]
but may increase profits	[½]
as premiums received are higher	[½]
and improve solvency coverage ratio	[½]
but risk of increased new business strain	[½]
Company may want to reprice to reflect this	[½]
Surrenders may reduce if there are restrictions on surrender under the govt incentive	[½]
There may be a maximum amount policyholders can invest under the new incentive	[½]
which may result in operational issues for the firm	[½]
which may result in improved persistency	[½]
The company will need to consider any implications on administrations systems	[½]
or other systems such as actuarial models	[½]
and actuarial data	[½]
The changes may impact policyholder illustrations	[½]
especially if the change only impacts future premiums	[½]
which may impact lapse and re-entry risk	[½]
which will mean more complications for systems	[½]
as will need to separate premiums and investments pre and post the change	[½]
Operational impacts for the company, for example reclaiming tax from the Government	[½]
Staff training needed on tax changes	[½]

[Marks available 13, maximum 6]

[Total 29]

Part (i) The question clearly stated that the purchase balance sheet was to be produced on a date that was not a standard reporting date. A large number of candidates did not give consideration to this issue and focussed on the possible differences in reporting standards between the two companies, or focused on the reporting of the results to the regulator which was not asked for in the question.

Part (ii) This was a short knowledge-based question that was either correctly answered or not.

Part (iii) Most candidates identified cost savings and diversification benefits. Only well-prepared candidates thought more widely about the benefits of having larger funds under management such as greater investment freedom or liquidity benefits.

Part (iv) Candidates who approached this logically, separating out the affected groups of policyholders and the considerations in terms of benefit expectation, benefit security and fair treatment. Specifically, when it comes to merging with-profits funds, what is generous to one set of policyholders might be unfair to the others.

Part (v) This was generally well answered, although candidates tended to miss out practical implications for the company, such as system changes and training.

Q2

(i)

The Minimum Capital Requirement (MCR) has a floor of 25% of Solvency Capital Requirement (SCR)

= 25% of €m = €2.25m [½]

the MCR has a cap of 45% of SCR [½]

= 45% of €m = €4.05m [½]

The MCR is subject to an overall minimum of €3.7m [½]

so the possible range for the MCR is €3.7m to €4.05m [½]

[Marks available 3, maximum 3]

(ii)

Generally, the first point of intervention results from failure to cover the SCR [1]

In this case the coverage of Own Funds over SCR is $10/9 = 111\%$ [½]

This is not a strong position [½]

However, only 15% of the SCR can be backed by Tier 3 [½]

and at least 50% SCR backed by Tier 1 [½]

Tier 1 = $4.1 < 50\%$ SCR = 4.5 [½]

so SCR not covered [½]

so there may already be regulator intervention [½]

which may damage reputation [1]

However, there is a further requirement to cover the MCR [½]

Tier 3 capital cannot be used to cover the MCR [½]

Subordinated debt is Tier 3 capital	[½]
so only the capital available to cover the MCR is the €4.1m of share capital	[½]
If the MCR is at the maximum level of €4.05m, then the coverage is only 101%	[½]
This is not a significant buffer	[½]
especially considering that failure to cover the MCR would result in loss of authorisation	[½]
Loss of authorisation would be severely impact the company	[½]
and possibly have consequences for board members themselves	[½]
Regulator may have given the firm an indication of acceptable limits	[½]
	[Marks available 10½, maximum 6]

(iii) (a)

The Board had concerns over the capitalisation of the company	[½]
and security of policyholder benefits	[½]
It may have considered raising additional capital	[½]
but, given the capital position of the company, it may not have been able to raise capital	[1]
on attractive terms	[½]
as its credit rating is unlikely to be high	[½]
The Board may also be concerned with the fair treatment of the with-profits customers	[½]
The number of policies has fallen rapidly in recent years	[½]
meaning that the risk of diseconomies of scale may lead to a disproportionate cost on remaining customers	[½]
The Board may also be concerned about an equitable distribution of the estate again potentially leading to unfair outcomes for customers	[½]
The Board may, therefore, feel that sale of the company is the preferred route	[½]
The Board may have considered a number of potential buyers	[½]
and Company B offered the best price	[1]
or the Board may have approached Company B directly	[½]
given its acquisition history	[½]
Company B has with-profits expertise	[½]
and may have been able to provide assurances on the fair treatment of the with-profits customers of Company A	[½]
The local regulator may have suggested / forced them to sell B	[½]
or required a capital add-on to be held	[½]
may be expecting a regulatory change which will reduce solvency	[½]
Shareholders require a return on their investment	[½]
The Company may have been struggling to sell new business due to low solvency	[½]
	[Marks available 12½, maximum 5]

(b)

Purchasing life insurance companies is clearly part of Company B's business model	[½]
It may have made synergies from recent acquisitions	[½]
and so has capital to invest	[½]
Company B may have been looking for potential acquisition targets	[½]
and Company A may have been under consideration	[½]
and the price may have been attractive to Company B	[½]
Price may have been low given A's financial position	[½]
and expected to achieve a good return on the investment	[½]

Company A's products may show strong similarities to those in Company B's portfolio	[½]
leading to the opportunity for synergies	[½]
Company A may have intangible assets that are attractive for example, a good brand name	[½]
Efficient operating systems	[½]
May achieve diversification benefits through product sold resulting in lower overall capital requirements	[½]
May achieve tax benefits	[½]
Cross selling opportunities	[½]
	[Marks available 8½, maximum 4]

(iv)

Unless Company B is restating the SCR at the previous year end, the SCR will be different as it is at a different point in time	[½]
The in-force business will be different and market conditions have changed	[½]
Assets held may be different	[½]
Company B may have altered the assumptions for Solvency II for the Company A business, based on its wider experience	[½]
or used its own models rather than continuing with those used by Company A	[½]
Both of which would then impact the stresses used to determine the SCR	[½]
Company A may have determined its SCR on the Standard Formula	[½]
and Company B may use an Internal Model	[½]
Although Company B may not yet have approval to use the Internal Model for the Company A business	[½]
It may be able to use a partial Internal Model	[½]
even if Company B uses the Standard Formula, the correlation matrix for the combined Company will differ to that of Company A giving a different SCR	[½]
Being part of a wider group may provide greater diversification benefits or better diversification across product ranges	[½]
Company B may be employing hedging of risks that were not available to Company A	[½]
For example, to manage the market risk associated with the annual management charges on the unit-linked business	[½]
or reinsuring mortality risk	[½]
or being able to do this more efficiently/cheaply	[½]
Company B may take a different approach to the ability to reduce the discretionary benefits of the with-profits business	[½]
The loss absorbing capacity of deferred tax associated with the Company A Business may differ for the combined company	[½]
Thus altering the loss absorbing capacity of technical provisions	[½]
Operational risk may have changed	[½]
There may have been errors in the calculation of one of the solo SCRs	[½]
	[Marks available 11½, maximum 6]

(v)

Maintain:

The desirability of the administration systems inherited from Company A	[½]
It may be that the administration systems of company A are efficient	[½]

and may be one of the reasons that Company B purchased Company A	[½]
Indeed, Company B may choose to migrate other with-profits endowments onto Company A's system	[½]
If the outsource company used by Company A is one that Company B may already use, then this may encourage Company B to leave the unit-linked business on that system	[½]
Cost of migration is more than the benefits	[1]
Specific features of Company A's products may mean that either the future ongoing costs are harder to estimate	[½]
or the migration may be hard	[1]
or may want to defer migration until more stable and a view can be formed	[½]
For the unit-linked business it would be necessary to consider the remaining duration of the outsource agreement	[½]
Depending on that term, Company B may choose to defer migrating the unit-linked business	[½]
or it may have to include the costs of breaking the agreement in the migration costs	[½]
 The operational risk:	[½]
Migration increases the risk that the administration system will not be able to administer the policies in line with their terms and conditions	[½]
Transferring the data increases risk of data losses and so on	[½]
Leading to rectification costs	[½]
Reputational damage	[½]
and possible regulatory sanction	[½]
This assessment may override financial considerations	[½]
 The impact on customer service:	
Customer service may be damaged by migration	[½]
Management may be too busy with other business objectives so have no resources available	[½]
 Migrate:	
Company B will believe it can simplify the processes, based on its past experience	[½]
The financial business case for migration	[½]
Migration from one administration system to another makes sense if the future savings in ongoing administration costs	[1]
outweigh the costs of migration	[1]
This will rely largely on the assumptions made	[½]
on the future ongoing costs	[½]
and the project costs for the migration	[½]
Company B may believe that it can estimate these reasonably well	[½]
 The impact on customer service:	
or may have lost the key knowledgeable staff	[½]
The other administration systems of Company B may be able to provide customers with a better experience	[½]
With more timely communications	[½]
With more insightful information	[½]
enabling customers to make better decisions	[½]
or by providing customers with a greater choice of how to engage with the company	[½]

[Marks available 20, maximum 10]

[Total 34]

Part (i) This was applying standard knowledge from the core reading. Some candidates missed out the absolute minimum value of the MCR and so did not set the correct minimum bound.

Part (ii) The question provided an amount of numerical information about the company. Candidates should expect to use such information in their answers. This should have led candidates to discuss the coverage of SCR and MCR by the different tiers of capital provided in the question.

Part (iii)(a) The board will be concerned about the capital position and so some discussion on the ability, or otherwise, to raise capital would be relevant. Reasons why the board may have concerns over the ability to treat customers fairly would be a consideration. The question asked why sell to Company B and so consideration of B's merits over other possible companies should be considered. Then consideration of other wider issues, such as Regulator pressure and consideration for shareholders, would also be appropriate.

Part (iii)(b) Firstly, consideration of why B might be looking to purchase another company and then going on to why A might be attractive would be a sensible way to approach this question.

Part (iv) One area that many candidates overlooked in identifying reasons for differences, was the possibility that the SCRs were in respect of different times and so would clearly be different. This could then be followed by a coherent rationale in terms of different models, the fact that B might have wider experience in assumption setting and risk mitigation techniques.

[Note that the exam paper had a typographical error in the rubric prior to part (iv). The currency was incorrectly changed from € to \$. One candidate commented on this and assumed it was an error. No other candidates commented or made reference to the currency differences and so no further action was taken.]

Part (v) It should be noted that this question asked for a discussion of maintaining current systems or migrating to other systems. The advantages of one action are often the disadvantages of the other option. Marks were awarded if the candidate expressed the same point from the other viewpoint. The main considerations were a cost benefit analysis of the two options, the complexity of migration versus the ongoing complexity of many systems, the potential operational risks, the risks to customer outcomes and the resultant reputational risk.

Q3

(i)

Understand who their target market is	[½]
and what their needs are	[½]
Young professionals, likely aiming to grow funds reliably	[½]
may not have excessive disposable income to lock away	[½]
but may have high risk appetite as time to grow	[½]
Goals may be to buy first home (suitable example)	[½]
Need to make sure product is tailored to these needs	[½]
Understand the financial sophistication of the target market	[½]
As they are young professionals, they may be financially aware	[½]
However, they may be inexperienced with investments	[½]
So, consider whether and how customers should receive advice	[½]
and ensure advisors are well trained	[1]
Ensure sales approach is appropriate	[½]
Include a post sales cooling off period	[½]
Must make sure they are not exposing customers to inappropriate risks	[1]
Particularly true with an investment product which is likely to attract those seeking high returns	[½]
Will need to stress test various risks to ensure solvency	[½]
Will need to ensure appropriate controls are in place	[½]
and MI to monitor effectiveness of TCF strategy	[½]
Must follow all regulations regarding TCF	[½]
and professional guidance from relevant bodies	[½]
Must follow guidance of from those who responsibility for TCF in the company	[½]
Need to ensure the charge is transparent	[½]
and fair	[½]
Ensure the guaranteed return of premium is clearly understood	[½]
Customers will receive less than their premium on surrender; must be clearly understood	[½]
Ensure no barriers to exit on death/surrender	[1]
Ensure any literature/communications are clear	[½]
Have good customer service	[½]
Give special consideration to vulnerable customers	[½]
Customers will receive average index return on maturity, which could be significantly lower than receiving full index return	[½]
Need to make sure this is clearly communicated	[½]
on death late in the term, the premium return could be significantly lower than the upcoming maturity payment	[½]
and company can still profit from derivative payout	[½]
Need to make sure customers understand that this is the balancing risk of guaranteeing premium return on death	[½]
Need to ensure the long-term viability of the company and product, so that there is stability throughout the policy lifetime. This will include:	[½]
Profitability	[½]
Competitiveness	[½]
Level of risk	[½]
Other suitable example	[½]
	[Marks available 21½, maximum 8]

(ii)	
Consider the costs involved in offering the product	[½]

Expenses, commission	[½]
and split between fixed/overheads and variable costs	[½]
and development costs	[½]
Price on a marginal cost basis or not?	[½]
Assumptions such as mortality	[½]
and yield on bond	[½]
and whether data is available to set assumptions	[½]
Consider the required profit margin/return on capital	[½]
Sensitivity of profit	[½]
Stress testing	[½]
Cost of offering guaranteed return of premium on death	[½]
may need to model stochastically	[½]
Will depend on mortality of target market	[½]
competition	[½]
Cost of similar products offered to young professionals by competitors	[½]
Income of target market	[½]
Young professionals, so perhaps low current disposable income but potential for high growth in future	[½]
so may want to price lower to get them on board now	[½]
and hold onto them long term/sell other products	[½]
Cross-subsidies	[½]
May consider offering this at a low margin	[½]
using cross-subsidies with another product	[½]
If it is considered worth it to get high-value policyholders on board early in their careers	[½]
Consider regulatory requirements	[½]
Consider tax treatment of product	[½]
Consider whether to reinsure the guaranteed premium return on death	[½]
and the costs associated with this	[½]
Financing and capital requirements	[½]
The cost of the derivative	[½]
All charges received at the outset, so no opportunity to increase if, for example	
Administration costs increase	[½]
Marketability	[½]
Monitoring sales volumes against available options	[½]
and reprice if option prices change	[½]
and ability to spread development costs	[½]
	[Marks available 17½, maximum 8]

(iii)

Counterparty risk	[½]
arising from bond issuer	[½]
and derivative issuer	[½]
Derivative risk	[½]
The success of the product depends largely on securing an appropriate call option that matches the liabilities	[½]
There is risk that terms available may change between product pricing and the purchase of the option	[½]
For example, price of the option increases	[½]

which could mean that charges are lower than expected (if they must pay more for the derivative)	[1/2]
which could reduce profitability	[1/2]
or appropriate maturity date is no longer available	[1/2]
Interest rate risk	[1/2]
If interest rates are low, then a higher proportion of the premium may need to be invested in FI bonds to meet the maturity guarantee	[1/2]
which leaves less to take as charges	[1/2]
and leaves less to invest in the derivative	[1/2]
making it difficult to meet the index portion of the payout	[1/2]
Mortality risk arising from guaranteed premium return	[1/2]
The bonds are chosen to meet the premium at maturity	[1/2]
so will almost certainly be worth less than premium on death before maturity	[1/2]
Given target market, this risk is likely to be low	[1/2]
Model risk	[1/2]
Incorrect modelling of mortality risk to account for cost of guaranteed death payment	[1/2]
may have priced guarantees with inadequate data	[1/2]
Operational risk	[1/2]
Risk accusations of mis-selling if the young investors do not fully understand risk	[1/2]
Product may be mis-priced, for example not correctly pricing for the guarantees	[1/2]
literature not clear on risks	[1/2]
Poor service may cause reputational risk/loss of business	[1/2]
Conduct risk	[1/2]
Other suitable example of operational risk	[1/2]
Reputational risk	[1/2]
If the index rises significantly, receiving only bond value on surrender could be perceived as unreasonable	[1/2]
Customers may be dissatisfied with maturity value	[1/2]
If the index has been low throughout the term but rises sharply before maturity/death, customers may expect a higher return to reflect final value	[1/2]
rather than an average term which may be much lower	[1/2]
Death benefit may be much lower than current index value	[1/2]
which could be poorly perceived	[1/2]
Competition	[1/2]
Competitors may offer similar product with lower charges/higher guarantees	[1/2]
Other products may prove more appealing to young professionals	[1/2]
New business risk	[1/2]
Mix of NB may be different from assumed in pricing	[1/2]
or lower volumes than expected	[1/2]
or higher than expected when would need a cap on volumes linked to options purchased	[1/2]
Expenses risk	[1/2]
Risk of expenses being higher than expected in the pricing	[1/2]
The company cannot increase charges easily if expenses are high	[1/2]
Other	[1/2]
Regulatory risk	[1/2]
Changing consumer demand	[1/2]

[Marks available 24½, maximum 12]

(iv)	
Counterparty risk:	
Limit exposure to individual counterparties	[1]
Investment limits in particular derivatives or bonds	[½]
Due diligence on counterparties	[½]
Consider credit rating of counterparty	[½]
Hold collateral	[½]
Derivative risk:	
Ensure time period between derivative agreement and pricing/selling is as short as possible	[½]
May need to cap sales volumes to the level of derivative assets available	[½]
Interest rate risk:	
Continual monitoring of interest rates	[½]
May need to consider pausing sales if interest rates fall too low	[½]
Mortality risk:	
Clearly define the target market	[½]
that is, what do they mean by “young professional”	[½]
Set limits for extent of mortality risk they will take on	[½]
Model risk:	
Thorough documentation of modelling process	[1]
any changes to methodology are tested and reviewed	[½]
checks in place to ensure data quality	[½]
Operational risk:	
Work closely with legal department to ensure contracts are clear to customers	[½]
Ensure any advice offered meets regulatory standards	[½]
Carry out regular survey of satisfaction with customer support	[½]
Staff, includes sales channel, training on the product	[1]
Reputational risk:	
Ensure product literature is clear and easily understood by target market	[½]
Set up process for clear communication with customers	[½]
Provide transparent explanations of payout on surrender or death	[½]
and on application of average return rate	[½]
Competition:	
Perform regular review of competitive landscape	[½]
Review pricing regularly	[½]
New business:	
Monitor NB levels/mix	[½]
Expenses:	
Manage expenses/cost cutting regime etc	[½]
Consider outsourcing customer services	[½]

Other

Regular monitoring of regulatory developments	[½]
Regular market research to understand consumer needs	[½]
Have a well-documented Risk Appetite Framework	[½]

[Marks available 17, maximum 9]

[Total 37]

Part (i) This question required application of the understanding of fair treatment principles, making sure the product met the needs of the target market. Key to an investment product is that the risks should be clearly explained and whether those risks are appropriate for that target market.

Part (ii) This question required a consideration of the standard pricing issues and applying those to the product in question. A specific feature of the product is that the amount of the premium available to cover costs is dependent on the asset prices and so the pricing needs to be dynamic in relation to movements in those asset prices.

Part (iii) This question was well answered, but again, relating the usual risks to the specifics of the product was key, again, noting the dependency of the product on the initial asset prices.

Part (iv) Again, this question was well answered and with a risk-by-risk consideration of mitigations.

[Paper Total 100]

END OF EXAMINERS' REPORT



Institute and Faculty of Actuaries

Beijing

14F China World Office 1 · 1 Jianwai Avenue · Beijing · China 100004
Tel: +86 (10) 6535 0248

Edinburgh

Level 2 · Exchange Crescent · 7 Conference Square · Edinburgh · EH3 8RA
Tel: +44 (0) 131 240 1300

Hong Kong

1803 Tower One · Lippo Centre · 89 Queensway · Hong Kong
Tel: +852 2147 9418

London (registered office)

7th Floor · Holborn Gate · 326-330 High Holborn · London · WC1V 7PP
Tel: +44 (0) 20 7632 2100

Oxford

1st Floor · Belsyre Court · 57 Woodstock Road · Oxford · OX2 6HJ
Tel: +44 (0) 1865 268 200

Singapore

5 Shenton Way · UIC Building · #10-01 · Singapore 068808
Tel: +65 8778 1784

www.actuaries.org.uk

© 2021 Institute and Faculty of Actuaries