INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

April 2016 (with mark allocations)

Subject CA1 – Actuarial Risk Management

Paper One

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.

F Layton
Chair of the Board of Examiners
June 2016

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

1. The aim of the Actuarial Risk Management subject is that upon successful completion, the candidate should understand strategic concepts in the management of the business activities of financial institutions and programmes, including the processes for management of the various types of risk faced, and be able to analyse the issues and formulate, justify and present plausible and appropriate solutions to business problems.

2. This subject examines applications in practical situations of the core actuarial techniques and concepts. To perform well in this subject requires good general business awareness and the ability to use common sense in the situations posed, as much as learning the content of the core reading. The candidates who perform best learn, understand and apply the principles rather than memorising the core reading.

3. The examiners set questions that look for candidates to apply the principles specific to the situation set out in the questions, having read the question carefully. Many candidates gain few marks by writing around the subject matter of the question in a more general fashion. Detailed specialist knowledge is not required and nor is very detailed development of particular points.

4. Good candidates demonstrate that they have used the planning time well to understand the breadth of the question and to structure their answer – this is a big advantage in making points clearly and without repetition. This also enables candidates to use the later parts of questions to generate ideas for answers to the earlier parts.

5. Time management is important so that candidates give answers to all questions that are roughly proportionate to the number of marks available.

6. The comments that follow the questions concentrate on areas where candidates could have improved their performance. Candidates approaching the subject for the first time are advised to use these points to aid their revision.

7. In this diet the scoring for the exam was done out of 200 and therefore the mark scheme shows a total of 200 marks available for the paper.

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

1. The standard of answers on this paper has been consistent with previous sessions, better candidates ensure that their answers are planned out and focus on answering the specifics of the questions being answered.

2. As per previous sessions candidates need to consider the application side of the questions being asked and ensure their answers are sufficiently wide to cover all options as well as going into enough detail to cover the main points.

3. Disappointingly the general bookwork questions were answered less well than in

previous sessions. Particularly Q6 on this paper, which given the topic was really disappointing.

C. Pass Mark

The Pass Mark for this exam was 56%. It should be noted that this is the average mark to be achieved across both papers.

Solutions

Q1 The main issue here is that premiums will not go up by more than inflation regardless of claims experience or new information on policyholders. [1]

This could mean those policyholders who are less careful or more prone to crime areas are attracted to the policy. [1]

Need to ensure that the initial premiums set are adequate to cover the risks. [1]

Therefore the underwriting management of the product will need to be carefully managed and understood. [2]

Homeowners may be less concerned around security if they know that their premiums will only rise with inflation and therefore any claims would not be counted in recalculation of the next year's premium. [2]

The insurance company will therefore need to consider the security arrangements of the houses. [1]

Need to consider limits on certain areas of the contract – e.g. easily lost items being covered under the "items taken outside of the house" – e.g. laptops/tablets – as again less care could be taken by policyholders. [2]

Will need to consider changing parts of the country – 5 years to guarantee is a long time and if some areas are slowly being targeted for crime then could be exposed on this for the guarantee. [1]

Also need to consider whether certain policyholders can be declined at the early stage, once accepted it is unlikely they can decline them once claims have been made, i.e. they are locked into the guarantee. [1]

Claims management will also be key to ensure that payments are only made to relevant claims and protect against potential multiple claims. [1]

Again claims management could be tightened up to be more challenging in cases of accidental damage. [1]

The terms of the contract could be tightened up to exclude careless loss (e.g. leaving the house unlocked) – although this will be hard to prove. [1]

Also need to control expenses/inflation. [1]

The insurer may need new modelling to value the guarantee and there may be a lack of data. Technical assistance may be required. [3]

Need to consider what additional premium would be required should the policyholder want to change the sum assured, this would not be on the guaranteed basis but if it was too high it might undermine the guarantee. [2]
Also need to consider whether this is competitive approach, if other providers are offering NCD or equivalent then could be that the guarantee is worthless anyway.
Need to be careful that new premium after 5 years is still competitive, so need to manage costs within premiums over first 5 years to avoid excessive premium increases. [4]

But only says that it will only rise in line with inflation, doesn't mean it has to rise at all. [1]

But in a competitive process the guarantee may not be that valuable. [1]

Also need to consider the definition of inflation rate (e.g. RPI/CPI). [1]
[MAX 10]

Generally disappointingly answered with few candidates actually focusing on the managing of the guarantee. Very few candidates mentioned underwriting implications or exclusion possibilities with most focusing on inflation.

Q2 (i) Miles driven
Speed
Type of roads driven on
Locations driven
Vehicle type
Location of car: overnight, during day
Driver ability: linked to number of years driving
Claims history
Policy conditions – cover type
– exclusions/NCD

Marks available for equivalent rating factor/risk proxy, unless covered a type of risk already.

[Max 4]

(ii) The insurance company will be able to keep track of the risks more accurately, obtaining information not normally measurable. [3]

It will now be able to see where and when the vehicle is being driven and at what speeds. [2]

It will also be able to judge the ability of the driver more accurately. [1]

This may also result in the insured driving more safely. [1]

There will be data available on any accidents including checks that claim adheres to policy conditions. [2]

There may be lower premiums for some policyholders. [1]

Box can be used to track stolen vehicles/alert emergency services [1]
[Max 6]

(iii) When pricing the new product the insurance company will need to consider expected cost of claims, expenses and contribution to profit. [2]

Boxes will give lots of additional data potentially, leading to eventual improvement in quality of pricing. But initially volumes may be low, and it may not be clear how to translate the new data to pricing model. So will probably still need to use existing data initially, based on factors such as the age and driving history of the driver, estimated mileage, overnight location of car and claims history. [7]

It may be possible to make some assumptions initially linking the new factors to the data they already hold. [1]

Could trial the box on existing customers to come up with their own data. [1]

If other insurance companies offer similar policies, this data could be used if it is available. [2]

If insurance companies in other countries offer similar policies, could consider using this data. This will need to be adjusted to allow for the different drivers and driving conditions in any countries with such data. [2]

It may also be possible to obtain data from a reinsurer. [1]

Data relating to multiple drivers of the same car will be difficult to allow for. [1]

The expenses on the policy will need to allow for marketing/advertising of new product. Also need to cover the cost of the box, as well as the cost of monitoring the driver. [3]

Claims expenses may be lower as more data will be available on the circumstances of each claim. [1]

The contribution to profit may initially be lower to support the product in the early years. [1]

There are likely to be higher margins for contingency initially. [1]
Reinsurance costs may be higher in the short term. [1]

Overall premiums need to be competitive. [1]

Initial estimates may be used initially with an added margin. Refunds may then be offered to qualifying policyholders. [2]

[Max 12]

[TOTAL 22]

Part (i) – Generally well answered, with many candidates scoring full marks.

Part (ii) – Generally well answered, with better candidates focusing on all of the issues.

Part (iii) – Reasonably answered, with better candidates ensuring points from part (ii) were not repeated under this part.

Q3 (i) Location is important for retailer success. [2]

Given that opposite changes are happening within the same city, the reasons are likely to be local rather than regional or national i.e. not general macro-economic issues. [2]

Market rents will reflect demand from tenants for retail units. Falling rents implies low interest from tenants, vice versa higher rents means higher demand. [2]

Likewise, demand from tenants will reflect demand from shoppers. [1]

Hence it would appear that consumer behaviour (preference) is changing. Or it's a possible response from other retailers e.g. relocation of a major retailer and other shops then follow. [3]

May be relative changes in supply, although supply relatively inelastic for property (change is over 1 year). [2]

Various local changes may occur that affect the two areas differently, for example:

- different business rates now imposed
- different rent reviews
- tenant quality.

[4]

Perhaps the falling rents are in a run-down inner city area with poor parking say. [2]

Perhaps the rising rents are in a more fashionable or out of town location with better transport links. [2]

[Max 8]

(ii) The prime consideration will be the expected profit on the transaction – will it be high enough to satisfy their objectives (targets) and risk profile (e.g. liability profile). [2]

Need to consider what other investment opportunities are available, the risk adjusted yields they offer, and the level of diversification they offer. [3]

In order to determine expected profits, they will need to estimate outflows (values of) – primarily purchase prices and costs of demolition and construction/conversion. [3]

These will need to be compared to expected revenues (values of) – either rental income or sale values on completion. [2]

Further cashflows will be needed if planning to rent properties. [1]
Marks available for any relevant example.

Will need to allow for inflation on all relevant cashflows. [1]

Allowance may be needed for tax on capital gains, or stamp duty. [1]
Marks available for any tax example, i.e. need to say more than just tax.

The investor will need to decide on an appropriate profit measure and risk discount rate. [2]

Decision to proceed will also depend on investor's experience/expertise in such property developments. [1]

Likewise, the cost and availability of capital to finance the purchases will need to be considered – do they have spare resources, will they struggle to get cheap finance (lenders view it as risky)? [4]

They will need to consider the principal factors that could affect these costs and revenues – in particular things that may cause delays and hence increase costs or reduce revenues. [1]

Given the state of the retail market in the area, the sites could be cheap – existing owners want to sell to cut losses (forced sellers). [2]

Will they be able to obtain vacant possession? If not, what are the terms and conditions of tenant leases – can they get them out cheaply and easily? [2]

Political intervention risks normally apply with residential property. As a change of use is involved, planning permission will be a key factor. [2]

Will permission be granted or will there be complications? E.g. zoning requirements or objections from other parties – perhaps a requirement for affordable housing for locals or restrictions on the height of blocks. [2]

There could be problems with the site e.g. some buildings are listed (heritage sites) or perhaps difficulties with clearance/construction – pollution, subsidence or general dangers or hassles. [2]

Revenue will crucially depend on the state of the local housing market (i.e. demand for housing) at completion. This will be linked to general economic factors but could be volatile locally (hot or cold spots) and hard to predict. [3]

Local features that will have a bearing on demand for housing could include: transport links, amenities, schools, closeness to workplaces (urban professionals) or fashion. [2]

Other local issues could come into play and affect demand negatively e.g. attractiveness or otherwise of the vicinity – crime, industry, state of decay etc. [1]

Will there be any government support for creation of residential property? [1]
[Max 16]
[TOTAL 24]

Part (i) – Better candidates scored well on this question by focusing on the different locations within the same city rather than giving very general impacts – e.g. train links would assist both areas.

Part (ii) – Again better candidates ensured their answers were focused and considered all options, compared to others that looked at just profit rather than evaluation all of the issues.

Q4 (i) Higher actual volume of surrenders than expected in valuation/pricing. [2]

This could be due to excess prudence in the valuation/pricing basis [2]

This assumes the usual situation whereby surrender values, in aggregate, are set below asset shares. [2]

High surrender volumes may be due to:

Extremely good fund performance in respect of unit linked products, participating business so that even high penalties were not a deterrent, and subsequent market upturns are not expected [2]

Economic crisis, which might have forced many customers to withdraw even at a financially disadvantage situation. Or customers influenced to sell e.g. by financial intermediary, press, friends, etc. Competitors may be offering better/cheaper products. [3]

There may be an active auction market, offering higher surrender values than the insurer itself. [1]

Tax changes, which would have made continuing some insurance products untenable for customers. [1]

Other issues are:

Surrender payments were overly cautious (low). [1]
E.g. profits weren't included in the calculations [1]

Deferred payment of surplus for profit policies i.e. terminal bonus. [1]

Change in method of analysis of surplus. [1]

Change in assumptions on withdrawals in valuation – lowering prudence margin. [1]

Solvency problems leading to a net outflow. [1]
[Max 8]

(ii) We know the nature of the surplus, surrenders.

Higher Bonuses will be popular with continuing policyholders. [2]

They may lead to greater business retention, or further new business, either of which should improve insurer's profits in the long term. [3]

Need to consider if this surplus is likely to continue. [2]

May not as there may be fewer policyholders and any mature policies will not be worth surrendering. [1]

This will depend on whether the product is still sold – consider if open or closed to new business. [1]

If it is still sold the surrender profits could quite easily become a deficit.
I.e. with the large initial expense of set up and unscrupulous advisors. [2]

If bonuses are increased then need to consider how. Regular would lead to a guarantee, terminal would be less tangible. Is surrender surplus is a one-off, a special bonus could be considered. [4]

Also bonus increases depend on overall solvency of office, and overall surplus available each year (i.e. not just from surrenders). [2]

Other considerations:

- Regulatory e.g. regulatory push to improve svs rather than increase bonuses [2]
- TCF/ PRE:
- Which policyholders should benefit from surrender surplus
- e.g. surrenders vs continuing policyholders
- and should bonuses increase only on the product types giving rise to most surplus
- What are competitors doing

[5]

- Retain for other business projects [1]

Future experience may change and margins in expected won't cover it. [1]

[Max 10]

(iii) Improve SVs [1]
Enhanced sum assured-improvements to existing benefits. [1]
Reduced premiums (only if reviewable) [1]
Review investment strategy – increase or decrease risk [2]
Develop new product etc. [1]
System/infrastructure developments [1]
Increased new business – fund new business strain [2]
New territory [1]
M&A [1]
Not increasing or reducing charges [1]
Liquidity management [1]
Reduce reinsurance need [1]
Retain for solvency (current or future position) [1]
Staff/executive bonuses [1]
Distribute profits to shareholders (if suitable) [1]

[Max 6]

[TOTAL 24]

Part (i) – Generally answered OK, but a number of candidates focused on the source in general rather than surrenders in particular.

Part (ii) – Most candidates understood the issues, but only the better candidates considered in depth. Some candidates interpreted bonuses as being staff bonuses rather than WP contract bonuses and credit was given as if points had been covered in part (iii).

Part (iii) – This part was well answered with most candidates scoring well.

Q5 (i) **With term assurance contracts mortality is the major factor affecting profits**. [2]

This is because benefits are payable only on death. [2]
Importance varies between level and decreasing term assurance [1]

Risk is from high number of deaths (or earlier deaths). [1]
If there are more deaths (or earlier) than allowed for in the premium calculations, profits will be reduced or losses may arise. [2]

Vice-versa higher profits from fewer/later deaths. [1]

Also, the prudence margin that could be assumed will be restricted in practise. [2]

The assumption is subject to long term uncertainty. [1]

Profits are very sensitive to death rates and relatively small changes compared to those assumed can make profits very volatile. [1]

This may be especially true here if policyholders are young and hence expected death rates are low. [2]

Also, some mortgages (sums assured) may be very large, premiums (and reserves) far smaller, and so the wrong deaths could have a material impact on profits. [3]

Likewise, if the company only writes term assurance policies or has geographical (or other) concentrations, profits could be even more volatile. [1]

Initial costs may be left unrecovered on early deaths, particularly as premiums are regular. [1]

With term assurance contracts, reserves are usually low and contracts without profits – hence fewer margins to offset poor mortality experience. [2]
[Max 8]

(ii) Effect depends on mortality impact of drug … [1]

… and also increases in its usage. [1]

It will be necessary to assess whether the change in policy will cause an increase in death rates in the population generally. [1]

However, the insured population may not have the same experience as the general population. [1]

It could be argued that homeowners with financial responsibilities (possibly older) are less likely to be habitual drug users – so less actual impact. [3]

Marks available for any reasonable example.

Though affluence and lifestyle issues may mean opportunity is greater for some. [1]
Likely to see an increased usage in the drug. [2]

Given that the drug is currently illegal, we can assume that it is dangerous – more deaths. [2]

However, given that it is being legalised, perhaps it isn't that dangerous mortality wise. Or longer term health benefits might emerge e.g. reduces stress So reducing any initial perceived impact. [3]

This is borne out by the research which, suggests that there will be some increase in mortality rates but there will be a lot of uncertainty. [2]

It will take a long time for changes to be reflected in actual death rates (depends on long term v short term impacts – overdoses). [2]

However, mortgage related contracts are long-term and so exposure to changes in the future will be high. [2]

There may be other factors as well as purely the impact on users themselves:

Crime rates may fall leading to fewer deaths. [1]

Alternatively, more people could be under the influence causing more deaths e.g. whilst driving. [1]

The policy possibly opens doors to further drugs being legalised … more deaths come through. [1]

Or the policy could go hand in hand with better and more extensive treatment (e.g. less stigma). This could reduce the impact on mortality rates. [2]
[Max 12]

(iii) Careful consideration of any exclusions in the policy wording will be needed. [1]

An exclusion will cover claims arising where the insured was a user (e.g. caused or contributed to death) of certain substances. Such claims will be rejected under existing wording. [2]

This drug may be specifically named as an exclusion meaning that the company can still reject claims. But there will be more work (and costs) involved with more usage of the drug – can insurer prove drug was used e.g. may not show up in post mortem. [2]

But it may be difficult practically to disqualify claims now that the drug is legal e.g. when did use start. And what does the regulatory regime say. [3]

Similar considerations apply if exclusions are framed in terms of any illegal substances – but less easy to justify voiding since the drug is now legal. [2]
This problem will be most serious for existing business where claims may now have to be allowed that were not factored into premium rating. [2]

The long term nature of the contracts will make these problems worse for recently taken out business. [1]

Policyholder communications will be needed to explain exclusion approach. Will need to allow for what competitors are doing, and there is likely to need to be a standard approach agreed across the industry. [4]

A decision about exclusions for future business will be needed – probably dropped for this drug. [1]

It may be that the drug is treated like alcohol or tobacco i.e. a rating factor rather than an exclusion. [1]

[Max 6]

[TOTAL 26]

Part (i) – Generally only answered OK, few seemed to go into sufficient depth to score full marks, but those that did and explained scored well.

Part (ii) – Generally well answered with most candidates explaining the issues. Better candidates gave a balanced answer on what the reclassification may do (e.g. increased usage may be an issue).

Part (iii) – Many candidates covered the changes to T&C's in general, but better candidates ensured that the issues raised were discussed in their solutions. Also better candidates considered others (e.g. competitors). Also those candidates who distinguished between existing business and new business scored well.

Q6 (i) (a) A regulator will monitor the adequacy of the provisions that a provider sets aside against future liabilities. It may prescribe the basis (assumptions and methodology) by which these amounts are calculated. The assumptions will contain margins above those that might be assumed on a best estimate basis. A provider may also be required to hold further free capital as a buffer for general adverse experience. [4]

The total of this additional capital in excess of the provisions established and the margins between the best estimate basis and the regulatory liability valuation basis is the solvency capital requirement. [2]

In some regulatory regimes, the solvency capital requirement comprises a highly prescriptive, prudent valuation basis with no or negligible additional amount. In others, the basic provisions are established on a best estimate basis, and substantial additional capital needs to be held. The security given by the regulatory regime is measured by the total of the two elements. [3]

(b) Economic capital is the amount of capital that a provider determines is appropriate to hold given its assets, its liabilities, and its business objectives. Normally assessed just on best estimate basis. [5]

Typically it will be determined based upon the risk profile of the individual assets and liabilities in its portfolio, the correlation of the risk and the desired level of overall credit deterioration that the provider wishes to be able to withstand. [4]

[Max 12]

(ii) Solvency capital is likely to be greater than economic capital as the regulator will probably require a company to be prudent i.e. hold more capital than they would consider necessary. Also, the regulator will be unlikely to allow for the benefits of diversification. [4]

The regulator will make assumptions relating to the average risk about companies when considering suitable requirements for solvency capital. It is possible that a particular company is exposed to much more risk than assumed by the regulator and this may result in the economic capital (which will allow for this risk) being greater than the solvency capital. [5]

1 mark available for any reasonable example.

[Max 6]

(iii) A long term care contract pays for care, as a lump sum or an annuity. Nature may be indemnity, or defined cash benefits. So the insurance company will have long term liabilities which may be fixed or linked to the cost of care. It will hold assets to match these liabilities. [4]

An economic balance sheet will show the market value of the company's assets (MVA), the market values of the company's liabilities (MVL) and the company's available capital, which is defined as the difference between the MVA and the MVL. The available capital can then be compared with the economic capital requirement to assess the company's solvency status. [5]

Market values of assets are usually easily and instantly available from the financial markets. [2]

There will, however, be some assets where this will not be the case e.g. unquoted bonds and equities, property. If the company holds these, the market value will need to be estimated. This could be done by discounting cash flows; judgement will be needed to ensure that the discount rate used is appropriate. [4]

The determination of a market value for the company's liabilities is not so easy and a high level of judgment is required to determine market consistent liability values. One approach is to determine the expected value of the unpaid liabilities stated on a present value best estimate basis and to add a risk margin. The risk margin could be determined using a cost of capital approach. [7]

1 mark available for an example of why judgment may be necessary.

Option pricing theory could also be used. [1]

[Max 16]

[TOTAL 34]

Part (i) – This question was very poorly answered with many candidates not being able to recall the bookwork.

Part (ii) – This was also really poorly answered, with many candidates getting the likely position the wrong way round. Some candidates gave an explanation that made sense if comparing to ratios rather than the underlying capital required and credit was given for this IF the rationale didn't contradict.

Part (iii) – This was either answered really well by candidates who applied the bookwork, or really poorly (or in a lot of cases not at all) with little application.

Q7 (i) The aim of the matching portfolio will be to match the income from the assets with the outgo from the liabilities, by nature, currency, term etc. [3]

This will require a projection of the outgo from the liabilities. [1]

And consideration given to the sensitivity of those cashflows under different assumptions and scenarios. [1]

Analysis for the matching portfolio could be deterministic or stochastic. [1]

This projection could attempt to be matched by buying bonds with coupons / maturity values exactly matching the expected cashflows. [2]

It may be difficult to create a matching portfolio if bonds of the required duration are not available. [2]

As a result an approximate match may be constructed based on the bonds which are available or those more reasonably priced in the market. [1]

It will not be possible to exactly match outgo from the liabilities as this would also require allowance for mortality risk, which will not be possible from a portfolio of high quality bonds. [1]

May be different possible sets of matching assets. Need to choose the optimal matching asset set e.g. highest risk adjusted yield. [2]

[Max 6]

(ii) Exposed to:

- general market movements/volatility
- credit risk
- liquidity risk
- Interest rate risk
- operational (e.g. fraud) and regulatory risks
- Investment expenses risk [6]

Also, changes to taxation rules, or treatment of insurance company for tax purposes. [1]

Duration mismatch (for matching portfolio). [1]

Inflation /indexation risks (for matching portfolio). [1]

Strategic risk from balance of strategy between matching and growth. portfolios. [2]

Currency risk (for growth portfolio). [1]

Active risk (for growth portfolio). [1]

[Max 6]

(iii) The insurance company will need to determine the overall risk budget, allowing for strategic, structural, and active risks. [2]

It will then need to determine how it will allocate these risks within the strategy. [2]

Both between the two portfolios and within them. [2]

For example, whether high quality bonds is just government bonds, or what types of corporate bonds will be permitted. If corporate bonds will be permitted, a credit risk budget will be needed for the matching portfolio [2]

The active risk budget will only be relevant for the growth portfolio as the matching portfolio is passively managed. [1]

Currency risk will also need to be budgeted within the growth portfolio. [1]

Need modelling of the growth portfolio to assess risk of future variance of return compared with benchmark (Forward looking tracking error) [2]

If a number of different asset managers are used within each portfolio the risk budget will need to be divided between them. [1]

Any diversification benefits from different asset managers would also need to be allowed for in the risk budget. [1]
Given the insurer has more assets than required, one option may be to hold a low / zero risk matching portfolio equal to the liabilities. [1]

This would mean as much risk as desired could be taken as the growth portfolio would effectively be "free assets". [1]

Although this would still require risk budgeting to confirm the maximum level of risk acceptable, which may depend on shareholder or policy holder expectations. [1]
[Max 10]

(iv) There should be different benchmarks for the matching and growth portfolios. [2]

And depending on the structure of those portfolios separate benchmarks for each of the individual managers within each portfolio. [1]

Those benchmarks should reflect an index reflective of the underlying asset class, or benchmark might be based on competitors. [4]

Care will be needed for the overseas equity in the growth portfolio to allow for the impact of exchange rate movements, and how (if at all) the conversion to domestic currency will be allowed for. [1]

Where a published investment index is not available, a representative index may need to be constructed. [1]

For example, this may need to reflect returns on domestic bonds of the specified quality, where published indices may reflect a broader range of assets. [1]

These indices typically do not allow for the impact of cashflows. [1]

As a result most investment performance monitoring is in relation to the time weighted rate of return. [2]

When monitoring performance the insurance company will want to compare the return on different assets relative to the appropriate index. [2]

The comparison needs to allow for fees. [1]

A decision will be needed on how frequently performance is to be monitored. [1]

This should be regularly to allow the insurance company to be confident that it can monitor performance. [1]

But mindful of the expense of monitoring too frequently. [1]

And mindful of the increased impact in the very short term of market. fluctuations. [1]

Could perform an analysis of reasons for departures. [1]

Performance of the overall strategy may also be monitored relative to a liability benchmark. [1]

Which may differ from the sum of individual asset manager benchmarks. [1]

This will also provide a comparison of the overall balance between the portfolios and managers. [1]

Although monitoring of the overall strategic allocations may also be carried out. [1]

[Max 14]

(v) The benchmarks used for different asset managers may not be appropriate. [2]

For example of it is based on a global equity index it may not reflect the intended market / currency exposure. [1]

The funds are actively managed, and therefore tracking error is expected. [2]

For example when different markets or sectors are volatile, active management is expected to deviate from general market returns. [1]

As the insurance company has stopped writing new business there will be a net cash outgo, which may lead to unexpected disinvestments. [2]

For example, shares bought in companies in growth sectors may need to be realised sooner than intended reducing the return achieved by the portfolio. [1]

There may be changes in investment style or views on outlook by investment managers leading to investments out of line with any index. [2]

For example, a new investment opportunity may arise within the managers remit which it believes will provide better returns but is not correlated with the index. [1]

The strategic allocation to managers within the portfolio may not reflect the assets mix of the index. [2]

For example, strong performance by one manager will increase their share of total assets unless any rebalancing between managers is carried out. [1]

Fees may have been deducted when calculating actual performance, but do not feature (of feature to a different extent) in calculation of index. [2]

There may be time lags or changes in the way investment performance is reported, either by the manager or in the index. [2]

For example of the investment manager uses single pricing there may be a change from bid to offer pricing which affects reported investment return. [1]
[Max 10]

(vi) If changes did go ahead this may change the relative attractiveness of holdings in different asset classes. [2]

Increasing the attractiveness of assets with positive adjustments to market value. [1]

While decreasing the attractiveness of other assets. [1]

However, this attractiveness would not be the only factor in determining the investment strategy. [1]

Which would still require consideration of the suitability of the assets in matching investment objectives. [1]

So it may be that the impact of the proposals is smaller, or more balanced than a clear incentive to choose particular assets. [1]

The introduction of maximum asset holdings may lead to changes to the strategic asset allocation in order to ensure all assets are included in solvency valuations. [1]

This may lead to the introduction of some alternative asset classes to maintain the objectives of the insurance company, if other assets meet these requirements without being restricted by the proposals. [1]

The level of diversification will need to be reviewed. [1]

There may also need to be greater consideration of individual asset manager allocations / remits to ensure there is less overlap for restricted asset classes.
[1]

As the insurance company has more assets than required, it may be happy to have assets in excess of the maximum holdings if it can demonstrate solvency with some assets excluded. [2]

Impact depends on what proposals end up being implemented (if any). [2]

The insurance company could decide to make no changes at the current time, but agree to a strategy review if proposals are confirmed. [1]

Or agree to a strategy review being carried out now, with agreement to implement if changes went ahead. [1]
Or carry out a strategy review now with immediate implementation. [1]

If the changes are seen as likely and imminent early changes may be preferred. [1]

In particular if this will increase the attractiveness of some asset classes this could impact on supply and demand, increasing prices or making some assets unobtainable. [2]

Which may create a tactical opportunity to increase holdings in those assets now. [1]

Or selling off assets now which will become less favourable and fall in price if changes are introduced. [1]

The insurance company may also wish to monitor any consultation process, to identify any changes which may be made to the proposals and adjust any potential strategy accordingly. [1]

[Max 14]
[TOTAL 60]

Part (i) – Generally mixed answers, with better candidates ensuring they focused their answer to the question being asked.

Part (ii) – Generally well answered, with most candidates picking up most of the risks.

Part (iii) – Again mixed with few scoring well – many just replicated the bookwork without applying to the specifics of the question.

Part (iv) – The benchmarks were discussed but generally answers were not in sufficient depth to score full marks. Few mentioned the need for monitoring.

Part (v) – Better candidates had a number of reasons and USED examples to make their points.

Part (vi) – Few candidates considered this in sufficient depth.

END OF EXAMINERS' REPORT