Institute and Faculty of Actuaries

EXAMINERS' REPORT

SA1 - Health and Care 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

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

The aim of the Health and Care Advanced subject is to instil in successful candidates the ability to apply knowledge of the health and care environment (in the UK and other jurisdictions) and the principles of actuarial practice to the provision of health and care benefits in complex situations.

Candidates who approach the questions, especially the more substantial elements of each question, in a methodical and detailed manner are far more likely to satisfy the Examiners and receive a pass in the subject. Candidates are expected to show that they can apply their knowledge of the subject to the particular scenarios set out in the questions rather than just setting out a list of generic points which are not relevant to the situation described. Candidates will gain few marks if they do not address the question asked or tailor their answer to the scenario detailed in the question but merely write around the topic of the question. Questions often require candidates to provide a wide range of points to gain high marks; for example, questions asking how a product might be priced. Candidates will gain few marks if they write extensively on only a few detailed points which, whilst relevant, do not demonstrate that the candidate has a good knowledge of the various areas to be considered. When undertaking past papers for exam preparation, candidates should exercise great care to adapt their exam answers specifically to the context of the question i.e., not copying or repeating past paper answers. Each question provides a unique context and candidate answers must be tailored accordingly.

The mark allocation for each question part gives an indication of the relative length of answer or number of points to be made to gain full marks. 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.

It is often helpful to use subheadings when answering long part questions.

Candidates who give well-reasoned points, not in the marking schedule, are awarded marks for doing so.

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

Well prepared candidates scored well across most of the paper. Most of the questions required an element of analysis or application of knowledge to a particular situation. For these questions, candidates did not always provide a sufficiently broad range of points to score well. The better prepared candidates made a wide range of points that related to the specific scenario set out in the question rather than just generic points, and thus demonstrated that they could apply their knowledge to the situation outlined in the question.

It is encouraging to see many candidates using headings in their answers to questions and setting out their answers in a methodical manner. This helps the candidate maximise their score in the exam and aids the examiners in marking scripts.

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The comments that follow the questions concentrate on areas where the candidates could have improved their performance.

The pass mark was set at a slightly lower level than in previous exams. Candidates appeared to find some of the questions harder than the examiners had anticipated when setting the question. As a result, the mark at which a minimally competent candidate would be expected to achieve on the paper was set at 55.

C. Pass Mark

The Pass Mark for this exam was 55.
60 presented themselves and 19 passed.

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Solutions for Subject SA1 September 2023

Q1

(i)(a)

Health impacts of increased flooding could include:

Higher deaths from drowning	[½]
or injuries	[½]
An increase in diseases	[½]
For example, from drinking or coming into contact with contaminated water.	[½]
Increased rates of infections	[½]
Existing illnesses could be made worse by flooding	[½]
Damage to healthcare services and infrastructure, leading to delays in treatments which could adversely impact health outcomes for individuals.	[½]
Reduced availability of medicine	[½]
Flooding could adversely impact farming resulting in food shortages and possibly starvation	[½]
Adverse impact on mental health caused by the trauma of flooding	[½]
Long-term impacts of more severe flooding could be increase in poverty-related diseases including malnutrition	[½]

(b)

The way citizens used health care services could be impacted in a number of ways

Additional need for medical services due to:	[½]
Injuries	[½]
(other relevant example)	[½]

There may be a significant increase in the need for particular types of treatment such as ICU, emergency care, acute treatment due to a need to treat severe injuries	[½]
And lower demand for other services	[½]
Although other usage such as outpatient care may increase again over the longer term and potentially could be even higher than previously if delays in diagnosis/treatments have worsened medical conditions	[½]
Increased demand for health care services could lead to poorer quality care	[½]
due to overcrowding	[½]
and treatment backlogs.	[½]
The ability of citizens to access local health care services could be disrupted - for example due to flooding	[½]
or power outages.	[½]
Medical staff may struggle to get to work due to the effects of flooding, which could impact the care that can be given.	[½]
Citizens may need to travel much further than normal to get necessary healthcare treatment.	[½]
Citizens could be hampered getting to health care services to receive treatment due to damages to the transportation systems.	[½]
Healthcare services may need to prioritise the services they can provide and who they treat	[½]
So individuals may find that non-urgent treatments may be delayed.	[½]
There may be a move to accessing medical services on-line	[½]

[Marks available 14, maximum 8]

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(ii)
Impact on PMI Claim frequency:
Increased flooding could cause an increase in the frequency of PMI claims [½]
Potentially there will be greater variability of PMI claim numbers and claim amounts due to flooding from year to year as flooding experience is more variable from year to year. [½]
There may be a number of years with low claims and others with very high claims [½]
particularly in years where there are extreme flooding events [½]
Which could lead to big spikes of claims in a particular year. [½]
The impact of flooding is also likely to be quite regional. [½]
With areas that are susceptible to flooding seeing quite significant variations in claim numbers but areas less prone to flooding seeing little variation from year to year [½]

Increase costs in PMI Claim amounts:
A greater number of PMI claims is likely to lead to higher aggregate PMI claims paid out in monetary terms. [½]
Greater severity of flooding events is also likely to lead to higher PMI claims. [½]
Claims may take longer to settle during periods of flooding as they are more complex [½]
For example, due to worsening of existing conditions [½]
Such as respiratory illness [½]
Providers may increase costs if they need to repair flood damaged facilities (or move to locations less prone to flooding) [½]
Citizens could have disruptions in the supply of critical medicines or medical treatments [½]
which could lead to greater ill health and more frequent / expensive claims. [½]
If citizens are unable to get medical treatment during a flood then utilisation rates in hospitals (i.e. the extent to which individuals use hospitals) may fall [1]
which could change the profile of claims costs experienced significantly. [½]
There could be delays in health and care insurers being able to process claims. [½]
The claims mix between different regions of country X may change [1]
with a heavier weighting of claims from regions that are flooding than had previously been the case. [1]
The experience for a particular company will depend on how much business they sell in areas that are affected by more frequent / severe flooding. [1]
The experience of the insurer will also depend on any flood prevention/strategies put in place by the government. [½]
Changes in claims frequency and amount will make identifying trends in past claim experience more difficult to identify [1]
Future claim experience may therefore be quite different to past claim experience. [1]
[Marks available 15, maximum 10]

(iii)
Company ABC will need to consider a wide range of factors when deciding whether to re-price its PMI business immediately.
Expected future Claims Experience:
Is future claims experience likely to immediately change due to increased flood risk? [½]
If so it may be appropriate to re-price immediately. [½]
If the impact of flooding is expected to gradually lead to more adverse claims increase over time then an immediate increase in premium rates may not be sensible [½]

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If the impact of increased flood risk is expected to increase over time it may be more appropriate to have a phased increase in premium increases. [½]
ABC may prefer to wait to increase premium rates until it has built up more experience of more adverse experience due to increased flood risk. [½]
It may take some time before ABC has sufficient credible data to decide whether it should reprice or not. [1]
Historic data may not be a good indicator of expected future claims experience. [½]
Consideration should be given to how much credibility should be given to the university study. [½]
Consideration should also be given to whether there any other sources of information to back up the university study [½]

Pricing / Profit:
ABC should consider the potential profitability implications of changing and not changing premium rates. [1]
If ABC does not change its premium rates immediately and claims experience worsens then it will need to consider the potential adverse impact on profitability on the PMI business. [½]
If ABC does increase its premium rates immediately it may end up charging too much for the risk taken on if increased flood risk does not materialise immediately [½]
Which could make ABC's PMI premium rates uncompetitive [½]
Assuming PMI business is annually renewable there may be less pressure to increase premium rates immediately… [½]
Since if experience is worse than expected then premium rates could potentially be increased in the future. [½]

Solvency:
If ABC is already well capitalised then it may be willing to defer decisions on repricing its PMI business [½]
If ABC it is not well capitalised then it may prefer to reprice immediately [½]

Competition and Sales:
Are ABC's competitors repricing or waiting to see what happens? [½]
Is there likely to be an adverse impact on sales if ABC re-prices before its competitors reprice? [½]
There may be reputational issues for ABC if it decides to increase premiums ahead of competitors. [½]
If it doesn't move immediately but competitors do ABC may be subject to increased anti-selection [½]

Lapse experience:
Could increasing premium rates immediately lead to an adverse impact on lapses? [½]
Particularly if competitors don't immediately re-price their own PMI business. [½]
If there are a large amount of lapses could these be selective lapses - i.e. those individuals in the best health that surrender? [½]

Capital Requirements:
Increased variability in claims experience will potentially lead to higher capital requirements [½]
Which will lead to higher premiums for consumers. [½]

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Regulation:
Consideration will need to be given to any regulatory requirements [½]

Underwriting:
Consideration will need to be given to whether ABC will change any of its underwriting requirements due to the increase in flood risk. [½]
For example, if it were to stop taking business from the areas of the country that were most at risk to increased flood risk then it may decide not to increase premium rates immediately. [½]

Reinsurance:
If ABC has reinsurance for its PMI business then it will need to consider if the reinsurer will change its rates immediately to reflect the increased risk from flooding. [½]

Practical Issues:
ABC will need to consider operationally how quickly it is possible to make changes to premium rates. [½]
Is an immediate change possible? [½]
An immediate change may lead to extra costs [½]
Consider how much notice needs to be given about premium rate changes to advisors/customers. [½]
Consider the time needed to train advisors / servicing staff about the changes in pricing. [½]

Customer Impact:
ABC will need to consider the impact on customers of immediately increasing PMI premiums [½]
Could a significant increase in premiums cause issues with affordability? [½]

Treating Customers Fairly Issues:
ABC will need to consider whether there are any specific treating customers fairly issues. [½]

[Marks available 20, maximum 10]

(iv)
The information that is available about the potential impacts of climate change on claims frequency / amounts appears to be quite limited which will make it very difficult to estimate the additional capital requirements due to increased flood risk. [1]
Consideration will need to be given to both the impact of a general increase in claim amounts / frequency and the impact of extreme flooding events on the additional capital requirement from increased flood risk. [1]
The impact of flooding may impact a range of different assumptions in the capital calculations such as mortality, morbidity, lapses, expenses. Determining the impact accurately may be difficult to do. [1]
A 99.5% VaR approach is looking at the 0.5% most adverse scenario when determining the capital to be held. Assessing the risk in the tail of the most adverse scenarios accurately is likely to be particularly difficult given the limited information available. [1]

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As adverse flooding only takes place infrequently it will take many years to build up a clear picture of the most adverse scenarios due to increased flood risk. [1]
ABC's initial estimate of capital may be very imprecise as the initial estimate of additional capital requirements due to increased flood risk. [1]
The amount of additional capital held for flood risk may need to be revised over time as new information becomes available. [1]
ABC will also need to carefully consider whether changes in flood risk will impact the correlation of different risks in its regulatory capital calculation. [1]
ABC may not have sufficient internal expertise to accurately assess the impacts of flood risk on its business and may therefore need to get external expertise to help determine the amount of additional capital to be held. [1]
Developing a model which can accurately determine the additional capital required for flooding may be extremely complex [1]
and possibly beyond the skills of the individuals in the company. [½]

[Marks available 10½, maximum 7]

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[Total 35]

Part (i) was generally well answered with candidates providing a wide range of relevant points that were relevant to the scenario that flooding would likely increase in frequency and severity in future. Whilst candidates often mentioned the potential increase in demand for emergency care, they did not mention that the demand for other services may be reduced or that the latter may increase over the longer term and may increase if delays in treatment worsen other medical conditions. Only well prepared candidates discussed the difficulties patients may have in accessing treatments or medical staff reaching hospitals etc or that there may be a trend to accessing medical services on-line.

Part (ii) was much less well answered. Whilst candidates often mentioned the potential increase in the number of claims and their size, only well prepared candidates discussed the reasons why these might happen. Well prepared candidates discussed points such as the potential difference in claims experience between areas prone to flooding and those not, potentially leading to a change in claims mix. This may or may not have an effect on the claims experience for company X depending on how much business it sold in flood prone areas. Generally, only the better candidates discussed that the trends in claims experience would be difficult to identify and that future claims experience may be quite different frorm past experience.

Part (iii) required candidates to set out a wide range of points covering the different areas to be considered if a product is to be repriced to score highly. Candidates who provide a large number of points on only a small number of areas would score less well. This question was generally well answered with candidates often using headings to set out the various areas to be considered. Important points include that the company should consider the potential profitability implications of changing and not changing premium rates, in particular with regard to what may happen if experience changes materially in the near future or not and what competitors may do. There is also a question as to how credible the study is and whether there are other sources of information that might be considered.

Only well prepared candidates mentioned that annual PMI would likely be annually renewable so that premiums could be increased gradually if experience worsened in the future. Similarly, few candidates discussed whether its underwriting may need to change or the practical issues that would arise under a repricing such as how quickly a change in premiums could be introduced or the time needed to retrain advisers and servicing staff.

Part (iv) was generally not well answered. Whilst candidates often discussed data issues, the likely complexity of a model and the potential lack of expertise in the company to do this, few mentioned other challenges such as the difficulties in assessing whether and how changes in flood risk would impact the correlation of different risks in its regulatory capital calculation.

Q2

(i)

The family will have regular outgoings that will need to be met. For example:

Daily living expenses for themselves and their dependants.	[½]
Food	[½]
Utilities	[½]
Rent	[½]
Other reasonable example	[½]

Other regular costs such as:

School fees	[½]

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Pension contributions [½]
Insurance premiums [½]
Other reasonable example [½]

The parents may also need to pay for daily living expenses for the grandparents [½]
which could include care costs. [½]

The family may also need to cover non-regular or unforeseen expenditure such as:
Holidays [½]
Home / Car maintenance [½]
Other reasonable example [½]

The family may need to service Mortgage repayments [½]

and any other debt they have such as:
Credit card repayments [½]
Personal Loans [½]
Other reasonable example [½]

The parents will need a regular income or savings to cover these outgoings. [½]
The grandparents will also need a regular income or savings to cover their outgo, or potentially they may need to rely on the parents. [½]

[Mark available 10, maximum 5]

(ii)
Major Medical Expenses (MME):
The state will already cover surgery or major event costs under the country's universal health care system [½]
which would suggest MME is not suitable to meet the parents' or dependants' financial needs. [½]
However, there may be costs incurred associated with a major medical event which could be covered by MME. [½]
Those costs could be incurred during the major medical event or during the period of recovery from the event. [½]
There may also be costs incurred while on a waiting list for accessing state health care or for each day in hospital which could be covered by MME. [½]

If the MME policy covers the parents or child then in the event of a major medical event the costs could include: [½]
Transportation costs to and from hospital [½]
Accommodation near the hospital for the family [½]
Domestic support e.g., cooking, cleaning [½]
Other reasonable example [½]

MME could provide cash and so enable the family to continue to meet its personal financial needs while experiencing the disruption to daily life associated with health treatment and services. [½]
The sum insured for MME is likely to be quite low, so it is only likely to meet short-lived disruptions. [½]
So MME may be suitable to cover some of the family personal financial needs. [½]

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Critical Illness (CI):
Although there is free health care, a critical illness diagnosis can be associated with potentially significant additional financial needs for the family. [½]
The CI benefit provides a lump sum which could be used to meet a wide range of the family's financial needs [½]
So CI is potentially suitable to meet a wide range of the family's personal financial needs. [½]
The CI benefit could be used to replace lost income of the parent [½]
because they are too ill to work [½]
or because they can't work as they need to care for a sick child [½]
The CI benefit could also be used to complement any limited state disability benefit. [½]

CI could be used to meet whatever the outgoings of the family were at the time the event occurs such as:
Daily living costs - food/clothing etc [½]
Unforeseen costs such as: [½]
Accommodation for major life changes associated with CI diagnosis. [½]
Rehabilitation costs [½]
Pay for psychological support for family [½]
Servicing debt costs such as:
Paying the mortgage or other debt costs in the event of a loss of income. [½]
Other reasonable examples *(up to 1 mark)* [½]
If the product is written on an accelerated basis then it will provide mortality cover for the dependents [½]
which could be used to meet additional costs such as funeral costs. [½]

If a CI event occurs to a grandparent:
Parents may wish to stop working to care for a parent during a CI diagnosis. [½]
Parents may wish to pay for at home support during diagnosis or recovery for the grandparent to enable them to continue working. [½]
There may be an insurance need; however critical illness can be very expensive at older ages so it may not be affordable. [½]
Critical illness may have a maximum age of coverage of 60 (state retirement age) so the product may not be suitable for a grandparent. [½]

Income Protection (IP):
IP would provide an income to enable the family to continue to meet its personal financial needs while experiencing disruption associated with loss of income. [½]
Although there is basic support for disability and unemployment provided by the state for citizens of working age, this may not be adequate to meet the financial needs of the parents and their dependants. [½]
IP could supplement or complement the limited state disability benefit. [½]
Therefore, IP is potentially a suitable product for the parents as it will cover some of the parents financial needs during a period of lost income [½]
For example, during a period where they are unable to work. [½]
Parents will need the replacement income if they are unable to work due to own illness, or a child's, or a grandparents, to cover the financial needs when they are unable to work e.g. regular expenditure, savings, servicing debt. [½]

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IP does not pay out in the event of unemployment, but the government pays unemployment benefits so this is not a financial need for the parents. [½]
Children do not have an income so would not need income protection. [½]
Grandparents may no longer be working in which case they would not require income protection as state and self-funded pension would still be payable. [½]
Overall IP is potentially a very suitable product for the parents. [½]
IP may have a maximum age of coverage of 60 (state retirement age) so the product may not be suitable for the grandparents depending on their age. [½]
[Marks available 22, maximum 12]

(iii)
Benefits:
The benefits aim to cover needs / costs associated with LTC including:
Domestic support e.g., qualified professional visits home regularly [½]
Live in care e.g., as condition deteriorates have professional carer live at own home [½]
Residential care e.g., move to old persons home with increased support [½]
Medical care e.g., provision of medical treatment in care setting [½]
Assistive devices (e.g., wheelchair or stair lifts) [½]
The benefits can also assist the life covered or their next of kin with support and advice to navigate the provision of care [½]
Benefit may be severity linked such that the amount of benefit increases with the need for care e.g., linked to activities of daily living [½]
The product can be on an indemnity basis which will keep up with the costs of care which can be beneficial as care may be required for a long time [½]
The product can be on a cash basis. [½]
Either by lump sum where the individual needs to manage the fund to cover expenses as they fall due [½]
Or by regular payment where the individual receives an annuity payment while meeting the claim trigger [½]
Benefit payment increases may be nil, fixed or index-linked increasing. Inflation index may have minimum and maximums. [½]
Benefits may increase before and after the point of claim. [½]
Benefits are generally paid for life but may be for a term (e.g., 10 years) [½]
After purchasing prefunded LTC, there may be a waiting period where the person is not entitled to benefits to remove anti-selection risk [½]
There may be a surrender benefit on a pre-funded plan prior to a claim incepting. [½]

Claims triggers:
For immediate needs, the initial underwriting process establishes the need before the product is bought [½]
For prefunded LTC, the claim trigger can be based on activities of daily living (ADLs) [½]
Or on a mental impairment trigger [½]
There may be a deferred period where the need for care is assessed to ensure it is indeed a long-term care need (not short term) [½]

Options/Guarantees:
If the insured life dies within a certain period, a return of premium may be provided i.e., death benefit [½]
A premium waiver option could be added following certain events [½]

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Group considerations:
There is no established group provision of LTC insurance [½]
[Marks available 11½, maximum 4]

(iv)
Meeting the parents / children's needs:
The more the parents can save on the cost of meeting the grandparents needs the more they could save into the children's current or future needs or their own [½]
Option B may be preferred if the parents have a personal preference which allows for higher risk tolerance [½]
However, paying premiums under A may be a stable and known amount and timing which allows the couple to better plan to meet their financial needs than the unknown quantity required under B. [½]
Option A may be preferred if the parents have a personal preference for risk aversion [½]
Option B provides the family with liquidity and fungibility of funds to meet needs as they arise [½]
Although money may not be available when required [½]
Option A may remove the temptation to use funds to meet more immediate needs/ family expenses [½]

Meeting the grandparents needs
General and personal preferences:
Option B would not include a profit margin [½]
Option B would not benefit from competitive downward pressure on costs [½]
Option A may include an insurance premium tax, tax on dividends, capital gains, and interest [½]
Option B may also incur tax such as capital gains tax, income tax. [½]
However, Option A may also offer tax advantages [½]
Option B may not include the required expertise [½]
e.g., the parents may not have sufficient expertise to self-care for an individual with complex care needs e.g., dementia [½]

Debatable - Quality of care:
It is not clear which option would provide a higher quality of care [½]
Option B may be higher quality of care - if care homes and services do not provide personalised care to the individual [½]
Option A may enable a professional carer to be sourced that allows for care needs to be better met [½]
Option B may enable care from a loved one which may better protect dignity in older age [½]
Option A may enable care from an independent person which may better protect dignity in older age [½]

Cultural:
Option B allows for a cultural norm for a family to have intergenerational living and / or family to have children and parents assist in the long-term care needs of elderly grandparents [½]

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Option A allows for a cultural norm of career progression / fulfilment without sacrifice for elderly care provision as parents may need to go part time or go in to the office in the future [½]

Burden of care:
Option B leaves the parents and children open to the burden of care which might affect the mental and physical wellbeing of the carer [½]
Option A removes the burden of care [½]
But exposes the grandparents to the risk of poor quality care [½]
Option A allows care to be provided where a grandparent does not live close enough for the parent to provide self-care [½]

Economies of scale:
There may be duplication of costs and expenses under Option A and as such Option B may allow a cost saving with economies of scale over the three grandparents [½]

Joint-life considerations:
It may be that the two grandparents still living may be a couple, and one can care for the other (if in good health) such that only two grandparents may be liable for option B from the parents' perspective [½]

Wide array of risks
Rates
Mortality / Longevity risk:
Option A has the disadvantage of losing funds if a grandparent dies without the need for care beforehand, although this is minimised if a death benefit is included [½]
Option B would enable additional funds to be put toward the care of other grandparents, including any expense deductions lost when the death benefit is paid [½]

Morbidity / Healthy Life Expectancy (HLE) risk:
Option B would be better if HLE is long e.g., if the grandparents live a long period of time without needing care, then the family can use the funds toward other costs [½]
However, if the single grandparent or the remaining grandparent in the other set experience poor health early (a short HLE) then option A would better help the parents manage their financial needs [½]
Option B would be suitable if the morbidity in older age does not require such technical or specialised care [½]
Option A would be suitable if the morbidity in older age can be accommodated with informal care [½]
The parents do not know the type of care required as all grandparents are currently healthy therefore it may come down to their risk preference [½]

Care cost risk:
Accommodation costs [½]
Option B has the benefit of economies of scale as the house is already being paid for as are food and utilities. [½]
Under Option A the parents would be paying for these to be provided for each grandparent potentially in different settings (close to where grandparents originally lived) [½]
in some settings the accommodation costs may be lower than under option B due to

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geography and the economies of scale in care industry provision. [½]

Medical services at home
For Option A medical care is included at home but would need to be met by the universal health care system under Option B. [½]
Option B therefore may cause more disruption to the parents' ability to meet financial needs and increase costs e.g., transportation to hospital and wait for treatment with grandparent [½]

Care provision
The need required may be more intensive than the parents can self-provide for e.g., more than 1- or 2-person job if full time care required [½]
This may require the parents to outsource to pay privately for live in care. Therefore, minimising the cost saving. [½]
Especially as they are both working so any care during the night may to be externally sourced. [½]

Inflation risk:
Medical inflation [½]
Option B may initially meet costs; these may increase at a rate higher than the parents can keep up with. In addition, the horizon of exposure may be increased with increased life expectancy in ill health [½]
Under Option A this risk is transferred to the insurer but may be passed on in terms of reviewable premiums. The parents could minimize this by selecting guaranteed premiums although this may impinge on their ability to meet other financial needs as so expensive. [½]

Salary inflation:
Option A the parents may not be able to meet the reviewable premiums with the salary increases awarded. [½]
Option B the parents are exposed to their salary inflation not meeting price inflation [½]

General inflation
Option B leaves parents exposed to the cost of general inflation but potential more exposed to some elements such as utilities costs e.g., need heating on all day or electricity for breathing assistance [½]

Investment risk:
Pre-funded policy is generally cheaper than immediate because there is some investment return [½]
Although all grandparents are currently not in need of care, they are all above retirement age so the term over which pre-funded policy can accumulate growth is limited [½]
The funds set aside under B may underperform to meet the expected cost of care for the grandparents [½]
This may be due to inappropriate fund selection. Option A is more likely to have better investment matching ability due to the law of large numbers. [½]
Option B may see the parents disinvesting at an inopportune time to meet grandparents needs [½]

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Option B could take advantage of good investment returns to help meet the costs of care [½]
Option A would benefit from reduced investment costs but only if self-managed, it may be outsourced to a wealth advisor who would charge fees [½]

Expense risk:
Option B has no contribution to overheads such as office, staff, etc [½]
Option B has no protection to increasing cost of administering own self-care such as medical paperwork, arranging appointments etc. [½]

Underwriting/Selection risk:
Option A may allow the parents to benefit from anti-selection where they have more information about the likely health of grandparents in the future than the insurer is asking as part of the underwriting [½]
Option B may allow the parents to benefit from improved understanding of the risk categorisation than the insurer is able to price on e.g., previous history of poor health in the family was caused by external factors such as occupation but grandparents were not exposed to this risk [½]

Physical risk:
Option B leaves the parents exposed to having to make any adjustments to the home or having to move the grandparents in to suitable temporary accommodation if there was for example a flood [½]
This is covered under Option A who would have a sufficient recovery plan and assets to meet the needs e.g., alternative homes [½]

Counterparty risk:
Option A exposes the parents to much more counterparty risk including the insurance provider and the care facility [½]
Option B includes counterparty risk on investment providers but so does Option A (though this is second hand) [½]

Regulatory or fiscal developments / State benefits:
Option A would not allow the parents to take advantage of any future changes in insurance developments or state benefits without sacrificing a withdrawal penalty [½]
Option B may leave the parents open to the risk of a change in working practices such as no longer being able to work from home [½]

[Marks available 33, maximum 10]

(v)
Social, political, or cultural promises:
This may have been a political promise made before coming in to power or to remain in power that they are now fulfilling [½]
This option may have been lobbied for by charities and think tanks who may have lobbied the opposing party (e.g., intergenerational living) [½]
The government may want to see a change in society to reduce the individualistic nature to more community based and so implementing such policies to incentivise change [½]
There may have been a call for better government policy response to a care crisis or health outcomes for those in need of care [½]

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The government may be seen internationally as comparable poor in terms of looking after the elderly [½]

Protecting the nation's health:
Facilitating care this way may reduce the burden on the health system where older individuals use hospital beds as no appropriate care is accessible [1]
The state may be having issues with the provision of universal health care due to the amount of unmet care needs in society e.g., older people taking up hospital beds. [½]
Therefore, this option improves the health of the population by enabling health outcomes for the others. [½]
There may be a lack of supply of private care facilities with no viable market for private provision. The state may therefore be encouraging at-home provision of care. [½]
There may be a lack of supply of labour for care with no immediate solution. To ensure there are people available to care and provide paternally for its citizens the state is providing an option to enable self-provision thereby increasing the supply of labour with informal care. [½]
Reduce costs of care, if promotion of self-provision reduces demand on care labour and infrastructure [½]

Promote economic activity / grow GDP:
To encourage the care industry to develop, and increase GDP, the government may be looking to move the elderly from self-care to self-funded care by encouraging the working population to pay for this through tax reduction. [1]
There may be a supply of private care facilities and staff but little or no demand from the elderly population. [½]
There may be spin off industry which increases GDP. e.g., Tax break allows funds for adaptations to the family home [½]
Granny flats, building a downstairs toilet, buying equipment such as stair lift, adapting for walk in showers or disabled toilets. [½]
There is an incentive for individuals to stay in work while providing self-provided care, instead of leaving the workforce. Therefore, net position may be better for GDP. [½]
The government may be seeking to encourage long-term high level savings to bolster the asset markets [½]

Balancing the budget:
Encourage self-provision to ease the strain on the universal health care system budget [1]
Any increased economic activity and growth of GDP may will help balance the budget through tax [½]

Redistribution of wealth:
Could adjust the tax income break based on income threshold therefore allowing a redistribution of wealth [½]
This policy may mean that the poorer in society receive the greatest benefit as otherwise would not be able to afford LTC insurance but can provide care in own home [½]
Do not need to own their own home in order to benefit. Can also be renting so benefits those without property capital. [½]

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Alternative to state provision of care:
This may be a more cost-effective option that creating a state provision of care [½]
This may be a simpler option that creating a state provision of care [½]
As no need to do any earning related qualifying rules as directly linked to ability to pay within a family [½]

Other
This option may have knock on benefits to other areas of concern such as:
Housing crisis. If older people are encouraged to sell their homes to move in with family, freeing up housing for younger generations. [½]
Childcare crisis. If there is a lack of affordable childcare or availability of childcare spaces, the government may be hoping that the income tax relief may allow families to better afford this or provide their own childcare while at home caring for elderly parents. [½]

Pension crisis:
There may be a significant number of elderly people without sufficient pension savings to meet national median income. As such promoting intergenerational living would improve the health and wellbeing of the elderly before they need care and potentially reduce the need for care in the long term. [½]
There may be sufficient number of working age people who are not on target to meet their personal pensions savings target. Creating societal norms of caring intergenerationally may minimize the impact in the future. In addition, providing a cost effective means of providing care for grandparents may better enable them to meet their own pension goal. [½]
(Marks can be awarded for other appropriate examples but should be award for reasons why the government would suggest this policy.

[Marks available 16, maximum 7]

(vi)
Social, political, or cultural promises:
This may have been a political promise of what they would do if they came in to power [½]
This option is better for the insurance and care industry who may have lobbied the opposing party [½]
This party may want to see a change in society to reduce the burden of care to be more community based and so implementing such policies to incentivize change [½]

Protecting the nation's health:
Removes the burden of care on the carer's physical and mental wellbeing - so protecting working age population's health [1]
Higher quality of care provided as uses professionally trained carers - so protecting elderly health [½]
The creation of more care facilities through investment due to increased LTC products will create infrastructure for the benefit of current and future generations [½]
Reduce costs of care, if promotion in the industry creates additional supply of care labour and infrastructure. This may benefit those people who need to self-fund as cannot afford LTC. [1]
May better look after financial needs of the parents and children as premiums are known amount which can be budgeted for [½]

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Facilitating care may reduce the burden on the health system where older individuals use hospital beds as no appropriate care is accessible [½]
Remove over reliance on health care system if services can be provided within the care setting such as GP appointments, nurse appointments, dressings, pharmaceutical reviews [½]
Increased corporation tax revenues from insurance and care industry may be put toward funding the universal health care system or employment benefits [½]

Promote economic activity / grow GDP:
People who cannot work from home have a reduced incentive to leave the workforce [½]
In turn, this would retain income tax on those individuals [½]
Boost the financial industry through the promotion of insurance products [½]
Create jobs in the insurance industry [½]
Promote the economy around care industry [½]
Create jobs in the care industry [½]
Building care homes [½]
Training care staff [½]

Balancing the budget:
The income tax revenue lost may be lower, if the premium expense is less than the at home provision of tax relief i.e., it is a fiscally better policy for the country than the government's proposal [½]
Increased economic activity and growth of GDP may help balance the budget through corporation tax [½]

Alternative to state provision of care:
The opposing political party may consider the state provision of LTC as unaffordable in the long term and as such is looking for a private provision solution. [½]

This opposing party may be looking to move toward state and private sector care co-existing in future: [½]
As a compulsory alternative - state may provide under a certain income threshold and private if beyond that [½]
As compulsory complement - state may provide care but limited to medical care (as already supplied in health care provision) but all other areas of care costs are mandatory to have insurance [½]

Other
This option may have knock on benefits to other such as:
Declining fertility trend. There may be a significant number of working age people or older people with no children. Therefore an insurance product is required as there is no one to self-provide for them. [½]
(Marks can be awarded for other appropriate examples but should only be awarded for reasons why the opposing party would suggest this policy)

[Marks available 14, maximum 7]

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[Total 45]

Part (i) was well answered with most candidates providing a good range of the potential financial needs to be covered. Some candidates misinterpreted the question and focussed on insurance related outgo rather than the broader spending categories the parents and their dependants might have.

Part (ii) required candidates to consider the types of benefits provided by the insurance products listed and discuss how these could meet the financial needs identified in part (i) allowing for the interaction with benefits provided by the state. Generally, only the better prepared candidates discussed the latter or provided an opinion on the suitability or otherwise for each of the products listed in the question. Candidates who gave only generic reasons to buy the insurance products and hence did not apply their knowledge to the specifics of the question scored less well.

Whilst candidates generally scored reasonably well when considering critical illness and income protection products, they generally provided little discussion on major medical expenses insurance or seemed unsure of what benefits this type of insurance provided and under what circumstances. Candidates should ensure they have a good knowledge of the benefits provided by the whole range of health and care insurance products.

Part (iii) was a standard knowledge based question. Most candidates scored well on this part.

Part (iv) was reasonably well answered. Given the number of marks available for the question candidates were expected to discuss the advantages and disadvantages of each approach under a wide range of headings. Important considerations include cost considerations and the parents' aversion to risk; for example, do they prefer a known, stable amount of outgoings associated with purchasing an LTC policy or are they happy to meet costs as they arise allowing for potential longevity risks. Do they prefer to provide care themselves and would they be able to do this given the likely disruption to their work or are they happy for others to do this. The solutions provide a wide range of other considerations.

Candidates did not generally score well on either part (v) or part (vi). A useful way to approach these types of question is to consider a range of aims the government may have and how the proposed policy might achieve these, or not. For example, the government is likely to want to improve the nation's health whilst balancing its budget and to promote economic growth. Relevant factors in considering how these aims might be achieved include the underlying cultural and social characteristics of the country in providing health and long term care (e.g. is this usually done within families or by the state and does the government want to change this), who can access state benefits (and how good are these), whether it wants to promote the health and care insurance industry and the ability of its citizens to afford the products, whether the government has made any political promises.

Q3

(i)

This could lead to a greater risk of over-insurance, leading to excessive claims [½]
And a higher risk of fraudulent claims occurring [½]
The existing policy may lead to a concentration of a particular segment of the market [½]
and the risk of catastrophic claims [½]
For example, at a single employer, geography or occupation segment [½]
The underwriting policy may no longer be competitive, for example [½]
If the financial underwriting policy has not been updated, inflation may have eroded limits, making the policy uncompetitive [½]

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Or if medical limits are no longer aligned with market practice [½]
Or competitors may be providing support to occupations previously excluded [½]
Leading to a loss of support from brokers / IFAs [½]
Which may impact new business volumes for this and other product categories [½]
Leading to expense risk associated with lower business volumes [½]
The company may be exposed to anti-selection [½]
e.g. as a result of policies being out of line with the market [½]
or new medical developments [½]
Leading to the risk of higher than anticipated claims [½]
Leading to the product having lower levels of profitability than anticipated. [½]
New policy benefits may have been introduced [½]
Leading to the risk pricing and underwriting policy no longer being aligned [½]
May not be following current regulations or be in line with current legislation [½]
For example, access for those with mental health problems [½]
Out of date underwriting approach could mean underwriting costs are higher than they should be if a more modern approach to underwriting was taken. [½]

[Marks available 11, maximum 8]

(ii)
Individual:
Take-up of individual policies following an exit from the group scheme is unlikely to be affected given the option provided to employees [½]
Insurer A may be able to offer better terms to lives who do undergo underwriting [½]
Leading to the business mix being dominated by healthier lives [½]
and potentially higher value policies [½]
Company A may be able to reduce claims underwriting which may be attractive to certain clients [½]
May provide benefit certainty which may be attractive to certain clients (e.g. those with pre-existing conditions) [½]

Group business:
May be relatively unaffected depending on the level of any free cover limits applied [½]
It is not clear what Insurer B's policy on industry/occupation and financial underwriting is [½]
If restrictions have also been removed then groups which include occupations that would be loaded/declined may now favour Insurer B [½]
Leading to a decline in new business volume for Insurer A [½]
And a concentration in industry/occupation groups which do not attract loadings [½]
Insurer A may be able to offer better terms to these groups compared to Insurer B who may cross-subsidise experience across groups [½]

[Marks available 6, maximum 4]

(iii)
The insurer could match the policy of removing medical underwriting [½]
This would allow the company to compete on the same terms. [½]
This insurer could introduce medical underwriting at lower limits / potentially increase underwriting requirements [½]
This could allow the insurer to offer schemes / healthy lives lower prices [½]
(Other suitable actions/reasons) [1]

[Marks available 2, maximum 2]

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(iv)

Investigate how the current underwriting practice is being implemented (for example how often are doctor's reports used)	[½]
Carry out a cost / benefit analysis of the current underwriting policy	[½]
A claims investigation would be required	[½]
Early claims may be particularly useful to understand to assess anti-selection, impact of waiting periods	[½]
Claims relative to underwriting category or loading would be useful to assess whether the current policy is effective	[½]
Declined claims would also provide information; for example, this may show where the underwriting policy is unclear and impacting customer experience	[½]
An investigation of exposure data would be useful	[½]
To understand if there are specific market segments that are under / over represented	[½]
Including by age, geographic location, occupation or industry category	[½]
A market investigation will be useful to understand competitor practice	[½]
and ensure that Company A's underwriting practice is not out of line with market practice.	[½]
and industry data may be available with policy statistics to evaluate experience	[½]
Reinsurers or consultants may have market data available	[½]
Medical practitioners may be useful to understand trends in diagnosis and treatment	[½]
Similarly, HR practitioners may be useful to understand new industry / job categories or descriptions	[½]
And provide information on current salary and future inflation expectations for financial underwriting	[½]
Investigate lapse experience and likely effects of changing underwriting	[½]
Investigate distributors' opinions	[½]

[Marks available 9, maximum 6]

[Total 20]

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This question covered underwriting. Candidates are expected to have a good knowledge of why insurers carry out underwriting and the different types of underwriting that might be used. They also may be able to discuss the risks to the insurer of using these, or not, for a given market scenario. Candidates who explored medical, occupational and financial underwriting as well as differences in individual and group business were able to generate a wide range of points across the questions.

Part (i) was generally reasonably answered. Candidates often discussed the risk of anti-selection, higher claim amounts, lower profitability and becoming out of line with regulations. However, only well prepared candidates mentioned the risk of becoming unknowingly over exposed in certain segments of the market and the risk of catastrophic claims or the possibility of reducing underwriting costs if a more modern approach were adopted.

Part (ii) was not very well answered. The question asked for the potential effects on company A of the change in company B's approach to underwriting. Candidates did not always distinguish between insurer A and insurer B leading to answers that were generic or confusing. Several candidates discussed the potential effects on the business mix of company B, which was not asked for in the question. Others failed to consider the whole scenario set out in the question; for example, the question stated that company A wrote both individual and group and that the business written was evenly split between both. Hence, candidates were expected to consider the effects on both company A's individual business and its group business.

Part (iii) was reasonably well answered with candidates required to provide two possible actions together with a reason for taking the action to gain full marks.

Part (iv) was less well answered. The better prepared candidates provided answers covering a broad range of areas. Candidates who focussed only on claims investigations and/or medical guidelines scored less well. Few candidates discussed looking at declined claims to assess whether the underwriting policy was unclear or that investigating exposure data to assess whether any market segments were over or underrepresented. As well as possible investigations the question asked candidates to give reasons for their suggestions. Candidates did not always provide reasons for the investigations they suggested and hence missed out on potential marks.

[Paper Total 100]

END OF EXAMINERS' REPORT

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