INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

September 2014 examinations

Subject ST1 – Health and Care Specialist Technical

Introduction

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

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

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

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

F Layton
Chairman of the Board of Examiners

December 2014

General comments on Subject ST1

Candidates who approached the questions, especially the more substantial elements of each question, in a methodical and detailed manner were far more likely to satisfy the examiners and receive a pass in the subject. Candidates will gain few marks if they do not address the question asked. 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.

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

Comments on the September 2014 paper

Overall, the paper was towards the harder end of the range. As usual, questions that focussed on knowledge of the Core Reading were well answered by those who had prepared thoroughly. However, questions requiring wider thinking or application of core reading to specific circumstances, such as questions 3, 4 and 6, were less well answered and students should recognise that these are generally the questions which differentiate those students with a good grasp and understanding of the subject. 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 concentrate their revision in these areas.

1 (i) Group critical illness insurance is normally purchased by an employer and written on the lives of the employees. The premiums may be shared between employer and employee. It is more likely to be stand alone CI than accelerated CI.

It would normally be written on a short term (annually renewable premium) basis.

A lump sum benefit is normally payable, typically a fixed multiple of salary, upon diagnosis of a "critical illness". These illnesses are defined by the insurer and specified in the contract. They may cover conditions such as cancer, heart attack, kidney failure, major organ transplant, multiple sclerosis, stroke.

TPD (total and permanent disability) cover may be included and terminal illness benefits may also be provided.

Tiered benefits may be offered whereby the benefit payment is linked to the severity of the disease.

There will be a definition of who is eligible for benefits under the scheme. This may include spouses and other dependants.

Exclusions may be applied.

There may be a free cover limit.

There may be a waiting/assessment period.

There will be a survival period (for SACI).

Members may be required to be "actively at work" when cover begins and there may be a minimum take-up rate if it is a voluntary scheme.

There may be a continuation option.

There may be a profit sharing arrangement.

[6]

This question was generally well answered, although some candidates didn't focus their comments on group CI schemes but also discussed features relating to individual CI which were not relevant.

2 The Chief Financial Officer (CFO) is correct that reinsurance can pass profits to the reinsurer, and it can also involve paying an expense, profit and/or contingency loading across to the reinsurer. In which case, increasing the retention level should increase the insurer's profits.

However, it may be the case that the reinsurance premiums obtained are cheaper than the expected cost to the insurer e.g. due to tax benefits or regulatory benefits such as lower capital requirements or because the reinsurer benefits from greater diversification. In which case, the proposal would not be beneficial.

Further investigation will be required to understand better the reinsurance performance before such a decision is taken.

It is important to understand how the CFO has measured reinsurance "profit". It could be measured as the excess of reinsurance premiums over reinsurance claims.

It is unclear how long the time period is over which the CFO monitored performance in order to form his/her view. Ideally it would need to be based on the aggregate results over a reasonably long period of time to avoid undue influence from random fluctuations. If it is just the past few years in isolation, there is a need to investigate further whether the apparent trend of favourable morbidity experience is likely to continue into the future.

It is also important to take into consideration other treaty terms such as any profit sharing arrangements (if these have not already been included in measuring the reinsurance performance).

There is a need to consider whether the reinsurance arrangement is on guaranteed or reviewable reinsurance premium rates. If it is the latter, there may be scope for a rate reduction in the future. It would also be necessary to consider whether the risk premium is level or increases with age. If it is level, a simple measure of comparing reinsurance premiums and reinsurance claims without taking into consideration the change in reinsurance reserve is likely to overstate reinsurance loss at early durations.

The original level of retention may have been determined because the insurer relies heavily on the reinsurer for other services such as underwriting, pricing and claims management.

The insurer may have chosen to have a low retention level due to lack of data and experience in the critical illness product. If the insurer has now gained sufficient own experience in these areas, the retention level could be increased beyond the point at which such services are provided.

There may be financial reinsurance arrangements in place, which could have influenced the original level of retention.

The level of retention may depend on any guarantees/options in the products e.g. premium guarantees, renewability options.

It is also necessary to consider the volatility of the portfolio. This may depend, for example, on the maturity or mix of the business written, and on the degree of diversification within it.

Any changes that can be made to the existing treaties will be governed by the terms and conditions of those reinsurance arrangements. If it is not possible to make alterations to the existing treaties, the only option may have to be recapture. Again, the exact costs and process of recapture will be governed by the terms and conditions of the reinsurance arrangement.

It is worth noting that if the changes made to the insurance treaties only apply to future new business, this will not address the issue of passing excessive profits to the reinsurers.

Increasing the retention level is not the only option; it might be more effective to negotiate more favourable reinsurance premium rates. The insurer should obtain new quotes from other reinsurers to assess the competitiveness of current reinsurance premium rates and could switch to these alternative reinsurers if the existing one will not match these rates. The assessment should take into consideration the corresponding credit rating and other services offered by the respective reinsurer(s).

The insurer could consider other types of reinsurance if they are cheaper, for example, it could replace a treaty with facultative insurance

The insurer should consider the size of the critical illness business/new business volumes in relation to the insurer's overall business to decide the appropriate level of effort to be spent on this exercise.

The insurer should consider its relationship with the reinsurer, including what other business is also currently reinsured with the reinsurer and the reinsurance performance of these other reinsurance arrangements.

The premium rates charged might vary by retention level, and therefore could rise if the insurer goes ahead with the suggestion.

The insurer needs to consider the level of its surplus assets. The greater the cushion that these provide, the greater the ability to withstand claims volatility, and hence the retention can be higher.

The decision should be consistent with the company's risk appetite (e.g. of its shareholders).

An increase in retention could result in:

- Having to hold greater margins in the pricing basis.
- Having to increase the margins in the reserving basis or holding additional reserves.
- Having to hold more liquid assets.
- Having more volatile profits which could have an impact on market perceptions and share price support (if applicable).

Less capacity to write new business.
An inability to accept very large individual risks or cumulative risks.

The insurer could perform further investigations to determine the optimal retention level. For example, it could calculate the probability of ruin under different retention limits using a stochastic model, with the claims rates as the stochastic variable. Alternatively the retention limit could be set to minimise the cost of financing an appropriate risk experience fluctuation reserve plus the cost of obtaining reinsurance.

[13]

This question was generally well answered. Most candidates discussed relevant points relating to why a high percentage of business was currently reinsured and the possible effects of increasing retention levels and other options for changing the company's reinsurance arrangements. However, many candidates did not discuss the CFO's statement in any detail – for example, how the CFO might have measured reinsurance profit and over what period. Similarly few candidates discussed the need to consider the terms and conditions of the existing reinsurance treaties, the current relationship with the reinsurer or ways of determining an optimal retention level.

3 (a) **Large cancer claim**

This claim is an abnormal claim, therefore setting a reserve for this claim based on historical statistical trends will not be appropriate. Instead, a case estimate of the total claim cost for this claim should be used to set a reserve. The case estimate should be set by claim experts in the business.

The relevant reserve is the outstanding claim reserve (i.e. the reserve in respect of claims notified to the insurer but not yet fully settled).

The following factors will/may be taken into account:

Type of cancer
Procedure type/treatments — this will indicate the cost of the procedure itself and the likely in-patient duration for accommodation costs
Current state of health and response to any treatment already undergone
Hospital (medical centre) to be used
Name of surgeon, consultant or other medical principal
Policy coverage (full indemnity, excess, limits, recuperation benefit etc.)
Age and gender
Past claims history of claimant
Current levels of medical inflation

The assessment needs to take into account that payments are likely to cease when the condition becomes chronic.

(b) **Recurring back pain**

On the overall portfolio, the PMI provider is likely to have many claims that are similar to this claim. These claims will be grouped together to set a reserve that cover this cohort of business or claim type.

The relevant reserve is the outstanding claim reserve (i.e. reserve in respect of claims notified to the insurer but not yet fully settled) (or claims in transit).

The reserve will be set using statistical analysis (e.g. claim triangles). This approach uses historical trends to estimate the ultimate claim amounts for the cohort. The reserve for this claim will be incorporated within the reserves for this cohort, rather than being set in isolation.

An IBNER (incurred but not enough reported) adjustment may be made (or separate reserve held) if it is felt that not all the detail of the claim has yet been submitted.

The assessment needs to take into account that payments are likely to cease if the condition becomes chronic.

(c) **Sports injury claim**

In isolation, no reserves are likely to be required because the claim has already been paid and because no further treatments are expected. However this claim will be grouped together with other claims (either by cohort of business or claim type) and statistical analysis (e.g. claim triangles) will be used to set reserves for this cohort. This will result in a small outstanding claim reserve for this claim (as part of the reserves set for the whole cohort) as the statistical analysis will show that historically for similar claims, some of these claims will require further treatments in future (i.e. claims "develop" further in future).

For all three claims a reserve for claims handling costs will also be set in addition to the claim reserves based on historic expense experience and allowing for expected cost inflation (where appropriate).

[9]

This question was generally not well answered. Many candidates described reserves such as the unexpired premium reserve and unexpired risk reserve, which are not claims reserves and were not relevant to the question. Few candidates provided more than a brief description of how the reserves would be set.

For case (a) few candidates provided a list of the factors that would be taken into account in determining a case estimate.

For case (b) there was generally little or no description of how statistical analysis would be used to set a reserve.

For case (c), only the better candidates mentioned that a small outstanding claims reserve might be needed to cover the possibility of further treatment being required in future.

Very few candidates mentioned the need to take into account for all the claims that if the condition becomes chronic then payments are likely to cease.

4 (i) No formal underwriting is carried out at the point of acceptance. Past medical history is examined at the time of claim.

The applicant can claim for any covered condition other than those pre-existing conditions which occurred in a defined period before taking out the policy for the first time; this defined period is often two to five years. This effectively excludes any conditions for which the applicant has received treatment (or experienced symptoms) during that defined period. This exclusion is waived after a period of time, usually two or three years, if the policyholder receives no further treatment for the condition.

[4]

(ii) The following answer assumes that the exclusion waiver period (assuming no treatment) is two years. *(Credit was given for any other suitable period assumed*):

In the first two years (policies with duration less than two years), claims experience should be at least as good as (i.e. not worse than) if front-end underwriting was done. The experience will be the same under both for healthy lives (or those with no PECs) and the overall expectation is that claim experience would be better (lower claims rate) under moratorium underwriting. However, full underwriting may attract a different set of persons, so this may not happen in practice.

A policyholder will not be able to claim for any pre-existing conditions (that they suffered during the defined period) under moratorium underwriting and therefore are likely to have more potential claims excluded than if front-end underwriting was used; therefore claims experience may be better under the moratorium during the first two years. Alternatively, claims experience may be worse under the moratorium approach because some poor lives may be covered (who may have higher levels of non-excluded claims) and these lives may have been declined under the more thorough front-end underwriting approach.

Under front-end underwriting, some of the pre-existing conditions may still be allowed in claims. This might be partly due to wishing to avoid the negative publicity associated with applying exclusions. Pre-existing conditions might be allowed for by applying premium loadings rather than excluding such claims, so the claims rate per policyholder (rather than as a proportion of premium) would be higher.

For policies with duration greater than two years: under certain conditions (i.e. no treatment or symptoms), claims relating to the recurrence of pre-existing conditions will be paid, and hence claims experience may start to deteriorate for the moratorium business.

However, those who had a recurrence of treatment or symptoms within the first two years will still not be covered under the moratorium version, but might have been under the front-end underwritten version, so claims experience may still be better compared to policies which had front-end underwriting.

After five years, the moratorium has been completely waived, so claims experience is likely to deteriorate further. Claims experience at this stage may be worse than for policies which had initial underwriting as initial underwriting may have led to permanent exclusions (or loadings) that remained on the policy.

[6]
[Total 10]

In part (i) many candidates had difficulty in describing moratorium underwriting in a clear way; in particular what happens in respect of pre-existing conditions and any treatments received for them in the defined periods before and after the policy is taken out. In many cases it was not clear that candidates understood there to be two distinct periods: the period before the policy is taken out which determines the conditions that are excluded under the moratorium, and the period after the policy is taken out during which the policyholder has to remain treatment free for those conditions in order for the moratorium to be lifted.

In part (ii) there was a general view that the experience under moratorium underwriting would be worse than under front-end underwriting for all periods of cover, which is not necessarily the case. Only the better candidates considered how the relative experiences might change when the moratorium period ends. Few candidates discussed the possibility that the two underwriting approaches might attract different sets of people with different characteristics or considered the case that some poor lives may have higher claims throughout under the moratorium approach because not as wide a range of underwriting had been applied as for front end underwriting. As in part (i), there seemed to be confusion about the different time periods involved under this type of underwriting approach.

5 (i) **Morbidity**

A detailed morbidity experience investigation of both claim inception rates and claim terminations/duration would be carried out, split by the following factors:

- Age
- Gender
- Duration from entry
- Duration from start of claim
- Cause of claim
- Size of benefit/salary
- Smoker/non-smoker status
- Underwritten status
- Source of business
- Benefit conditions e.g. length of deferred period
- Geographical location

Occupation or industry (for group business)
Size of group (for group business)

The insurer would also investigate whether there were any exceptional large claims over the period or whether there was an accumulation of large numbers of small claims.
Claim results would be investigated both gross and net of reinsurance.

The insurer may investigate the adequacy and effectiveness of the underwriting process and of the claims management process.

The insurer could review the policy terms and conditions to identify whether there has been any possibility of anti-selection or acceptance of claims that were not intended.

The insurer could also investigate medical advances that have taken place in the last few years in order to understand better their likely impact.

Lapse
A detailed persistency experience investigation would be carried out, split by the following factors:

Duration in-force
Sales method (distribution channel) used
Potentially also by individual sales adviser
Target market
Geographical location
Frequency of premium
Size of premium / benefit
Premium payment method
Original term of contract
Whether claimed before
Age
Gender

General
Separate investigations would be carried out for individual and group business.

There needs to be enough data in a cell for it to be credible, but it also needs to be homogeneous.

The accuracy of the data and valuation calculations should be investigated.

Trends over time would be looked at.

The insurer would investigate whether the profile (or mix) of business has changed significantly over the period.

Any analysis should be carried out against known changes such as:

- Policy terms and conditions
- Target market
- Underwriting approach
- Medical advances / early diagnoses (particularly for morbidity)
- Competitors' product changes (particularly for lapses)
- Service/standards/customer satisfaction
- Any changes in State benefit provision
- Any changes in tax/legislation/regulation/reinsurance
- Economic conditions.

The results would be compared with other companies' experience, if available, and/or with reinsurers' data.

Once the investigations are done, the results would be compared against the realistic valuation assumptions (to spot where losses are happening).

[10]

(ii) Greater use of reinsurance could be made e.g. quota share or individual surplus (i.e. proportional reinsurance) or excess of loss to reduce the impact of single large claims or stop loss reinsurance. Use could also be made of reinsurers' technical expertise.

The insurer would ensure that underwriting standards are in line with the pricing assumptions.

Underwriting could be made more stringent (for new business) e.g. lower "free cover" limits (group business), more use of pre-existing condition clauses, more use of general exclusions or more cases declined at the initial underwriting stage.

Clear application/proposal forms that reduce the chance of non-disclosure could be introduced, as could more stringent/effective claims management.

The insurer could actively target the most profitable segments of business. This could require a change of target market e.g. the avoidance of high risk geographical areas, higher risk occupations, high risk industries (group business) or lower socio-economic groups. This may also involve a change in distribution channel.

The insurer could increase diversification of business sold e.g. by product or by territory / occupation.

The terms and conditions (for new business) could be more carefully worded to avoid unexpected claims.

The product design for new business could be changed, e.g. lower the maximum replacement ratio, switch to a budget plan option, reduce or restrict benefit escalation, introduce a maximum payment term (or decrease expiry

ages), introduce services that encourage return to work e.g. rehabilitation or introduce proportionate benefits.

A linked claims period could be introduced or the deferred period could be increased.

A stricter disability definition could be required e.g. any occupation.

A "no claims discount" type arrangement, whereby a lower premium is charged if no claims have been made could be introduced.

The insurer could decide not to include guarantees or options and to offer reviewable rather than guaranteed premiums.

The pricing should reflect adequately the expected morbidity levels for both new business and reviewable premium business (at review dates) by having more granular risk rating.

Future trends need to be allowed for, as do anticipated levels of anti-selection (and non-disclosure).

An appropriate level of risk margin should be included and premium rates reviewed and updated more frequently.

For group business, profit sharing or experience rating could be introduced. A minimum take-up rate could also be required or take-up could be made compulsory.

Future surpluses could be stabilised or accelerated through securitisation or financial reinsurance.

In the extreme, the insurer could stop writing new business or de-risk through transferring the block of business to an external buyer.

[12]
[Total 22]

Part (i) was generally well answered with most candidates providing many relevant points.

Part (ii) was also reasonably well answered, with many candidates providing a wide range of possible actions. However only the better candidates discussed the possibility of making changes to the product design or specific actions that could be taken for group business.

6 (i) **Alzheimer's test**

IP

Alzheimer's mainly affects older policyholders so the test will have little impact on IP business. Stress-related claims under IP may be increased for those at older ages who have performed the test and had a positive result.

PMI

Alzheimer's is a chronic disease so it will not be covered under most standard PMI policies. However, the effects of accidents brought about by Alzheimer's may be covered e.g. pedestrian or kitchen accidents or forgetting to take medication which could lead to worsening of other conditions.

CI

Alzheimer's may be covered as an additional condition under CI policies. If it is not explicitly listed as a critical illness, then it may covered by TPD (if this is provided under the policy).

The payment may be brought forward significantly if the home test counts as diagnosis. Even if it does not, the test is likely to encourage the policyholder (or their carers) to seek an official diagnosis now or to make a note to seek an official diagnosis before the policy expires.

Thus the number of claims falling within the CI policy term could increase and therefore premiums could increase for new business/reviewable premium business. However, it may have a relatively limited impact on pricing if claims are dominated by cancers, heart attacks and strokes.

For accelerated CI there might be an even lower impact, to the extent that pricing is dominated by deaths rather than CI diagnosis.

Given that it mainly affects the elderly, there is also likely to be low impact for CI policies that do not provide cover beyond working age.

There is greater anti-selection risk. Existing policyholders may use options to extend the policy term or won't lapse, if they know they will be developing the disease. They may lapse or transfer to a policy that doesn't cover Alzheimer's if they take the test and it is negative (or vice versa if policy doesn't cover Alzheimer's and test is positive).

New policyholders who have performed the test (with a positive outcome) will be more likely to take out a policy with Alzheimer's as a covered condition. This will lead to an increase in price.

Alternatively, the insurer could consider the removal of Alzheimer's from the list of covered critical illnesses or require the policy to have been in force for over 6 years for this condition to be covered or have it as a pre-existing condition exclusion if the test has been taken with a positive outcome.

LTCI
Immediate needs LTCI may be affected, but the impact is likely to be small or minimal as policies are priced at the point of need and survival from then is generally less than 5 years. However, in future policyholders who had a test 3 or 4 years previously may make use of this knowledge when deciding when to take out an immediate needs policy.

There may be a significant impact on pre-funded LTCI. Premiums are likely to increase significantly at older ages due to the potential for policyholders to choose to start funding only when they have had a positive result. This will reduce the term over which premiums will be received to at most 5 years.

Potential policyholders could have taken the test years previously and approached the insurance company before symptoms occur. The insurer would need to consider whether policyholders can be asked to disclose the results of tests, subject to regulations allowing this.

There is increased potential for non-disclosure as this is a home test so there will be no record on official medical files. The insurance company may need to add the routine use of a test to its underwriting, which may increase the costs and hence premium.

[10]

(ii) **Stroke drug**

IP
It would increase the duration of claims for those policyholders who would not otherwise have survived the stroke. However, IP covers those of working age who will be less likely to have strokes so there would be little effect. Also, survivors may return to work quicker (leading to shorter claim periods).

PMI
The drug is new and could be expensive or it may need to be taken for a long time. If it is covered by the PMI policy, there may be a corresponding significant increase in expected claim costs. There may also be an increase in the number of physiotherapy claims due to more stroke survivors and length of claims. Hence PMI premiums would need to be increased.

For new policies consideration needs to be given as to whether the cost of the drug should be included in cover, and terms and conditions altered to reflect the decision.

This enhanced benefit may increase sales, which could affect pricing (e.g. spreading of overheads). However, allowance also needs to be made for the recovery of the costs of training sales and claims staff and changing marketing literature.

CI
There will be a small delay in payment of benefit on accelerated CI policies (payment now made on survival rather than earlier death) but this will likely be insufficient to allow the price to be reduced by any noticeable amount.

However, there could be a significant effect on stand-alone CI policies as stroke is normally one of the critical illnesses covered and policyholders are now more likely to survive the survival period required for payment.

There will therefore be an increase in claims and hence a need to increase the price.

It may be difficult to rewrite the terms and conditions to exclude this for new business (e.g. if it is a requirement to cover strokes in order for the policy to be called CI, as in the UK).

LTCI
Since immediate needs LTCI is usually individually underwritten at the point of need, the development will need to be reflected in the level of annuity offered. Any LTCI indemnity benefit may increase if a higher level of care is required (also for pre-funded LTCI) and individuals may live for longer (in care) if they now survive a stroke as a result of the drug (also for pre-funded LTCI).

The level of annuity offered for a given premium will be lower, hence policies may be less attractive leading to lower sales, which could lead to higher expenses per policy and hence further worsening annuity rates. However, demand could increase as there may be more stroke survivors who need care – which could lead to lower expenses per policy, potentially improving annuity rates.

For pre-funded LTCI the premiums are likely to increase as there will be higher survival from strokes and hence more people needing care post-stroke.

Points applicable to either part:
The extent of any change will depend on the proportion of claims arising from this cause.

There will be less impact on group versions of the policies as the members are more likely to be of working age.

Where claims are expected to be higher, there would also be an increase in claim expenses if there are more claims to deal with.

Margins may need to be increased for uncertainty, given that the treatments/tests are new.

Data are unlikely to be available, so consideration needs to be made as to how to estimate the increase in claims.

Where appropriate, premiums for policies with reviewable rates or with the exercise of lifestyle increases or indexation options should be increased as well as for new business when possible.

[10]
[Total 20]

This question was designed to get candidates to apply their knowledge to specific scenarios. Overall this question was not well answered. Only the better candidates discussed that the extent of any changes would depend on the proportions of claims arising from the causes, that if claims increased there would likely be an increase in claim expenses or that data are unlikely to be available for pricing and margins may be needed for uncertainty.

In part (i) many candidates didn't discuss that Alzheimer's impacts mainly older people beyond working age so that there would be relatively little impact on IP policies (or CI policies that did not extend beyond working age). As a result there would also be less impact on group policies as members are more likely to be of working age. Similarly, few candidates discussed that, as a chronic disease, it would not be covered under most PMI policies. In general there was also little distinction made between immediate needs LTCI and pre-funded LTCI (and also, for CI, between stand-alone and accelerated CI).

In part (ii) there was relatively little discussion of whether PMI products would (or should) cover the cost of the drugs. As in part (i) there was generally little distinction made between immediate needs and pre-funded LTCI or between stand-alone and accelerated CI.

7 (i) The CFO is correct that reducing underwriting can reduce expenses e.g. through a lower number of underwriters or fewer medical examinations.

Reducing underwriting can also result in increased volumes of business sold. This is because distributors (and customers) may favour a more relaxed underwriting stance with less "hassle" factor (or intrusion) and reduced processing time.

Lower costs could lead to lower and therefore more attractive premiums (all else being equal) which may outweigh any increase in morbidity cost.

Greater sales volumes could increase total profits to the company and reduce per policy expenses, but may lead to admin/capital strain.

There will also be the implementation costs for any new processes introduced, including any systems changes, amendments to the wording of application forms and proposals and retraining /redundancy costs. The company also needs to consider higher potential claims costs, the risk of increased anti-selection and lapse and re-entry.

If the company takes a very prudent approach given the reduced underwriting information, then more customers may be declined than previously. This could adversely impact the company's reputation, which could have a knock-on impact for sales volumes.

Reducing claims underwriting is likely to lead to increased fraudulent claims being paid. In particular, there would be an increased risk of non-disclosure at the claims stage.

Reduced financial underwriting may lead to moral hazard.

The insurer will need to consider the level of underwriting carried out by its competitors for this product to ascertain whether it is currently generally in line with the market or is taking an overly cautious approach. A reinsurer may be able to offer advice on this.

If reducing the level of underwriting would put the insurer out of line with its competitors then the insurer is likely to attract a disproportionate share of the adverse risks (i.e. anti-selection), which would increase the average morbidity experience of the portfolio. The insurer will want to charge for this additional morbidity risk and so is likely to have to increase premium rates. But this can further exacerbate the anti-selection effect, as the healthier lives are more likely to be take advantage of lower basic premium rates offered elsewhere where there is stricter underwriting.
If there are any options available on the product (for example, increasing cover with no evidence of health), reducing initial medical underwriting will also increase the anti-selection risk on these options.

Even if the impact of the lower underwriting costs exceeds the expected future additional claims costs, the company may not reduce its premium rates as it seems that the CFO is looking to reduce costs and increase profit margins rather than passing on all the cost reductions through to policyholders via lower premium rates.

Further, if reinsurance is used then it is likely that the reinsurer will either increase its rates significantly if the level of underwriting is significantly reduced or in the extreme may not wish to continue reinsuring this product and this might also be reflected in higher premiums (or lower profit margin).

Less underwriting will mean less homogeneity, making pricing harder. The lack of historic experience under the revised underwriting approach also makes parameter estimation and hence pricing more difficult. A margin might be included in premiums for uncertainty.

If premium rates are increased then this is likely to be unpopular with the insurer's sales channels, which could offset the sales advantage from the reduction in the level of underwriting.

The company may also need to hold higher reserves due to increased uncertainty about future morbidity experience. Increased reserves may affect the solvency of the company.

There are other implications of lower sales (e.g. increased per policy overhead costs, lower market share) and these may not be implications that the CFO has intended.

[13]

(ii) The company could reduce the number of cases that go through the underwriting process. For example, it could analyse how many cases are fully underwritten but where no additional premium is ultimately charged, to determine whether there are ways to avoid such cases unnecessarily going through the full underwriting process.

The company could increase the limits at which further evidence is required e.g. increase the sum assured above which a medical test is required or increase the free cover limits if it writes group business. In considering this, it should compare the costs involved in obtaining further evidence at lower sums insured versus the additional premium charged and/or the savings in respect of cases refused.

The company could include more detailed questions on the application form. It could carry out less expensive on-line automated underwriting checks or use simplified telephone underwriting processes.

The company could decline more cases rather than putting them through underwriting in order to determine an appropriate additional premium. For example, in the extreme, only those that answer all of the health questions positively could be offered cover.

The company could rely more heavily on exclusion clauses or have simple rating scales for substandard risks. It could extend the waiting period or remove medical or lifestyle or financial underwriting.

The company could improve the efficiency of its existing underwriting processes e.g. through introducing intelligent underwriting systems. The company could also review (and aim to increase) the number of cases handled by each member of underwriting staff and/or it could reduce the ratio of full underwriters to support staff.

The company could improve staff training.

The company could review and simplify processes.

The company could use outsourcing, if cheaper.

The company could reduce the fees paid to professionals or negotiate special rates or it could use lower qualified professionals, e.g. nurses rather than doctors for medical testing.

If it is found that the underwriting of one particular product absorbs most of the underwriting resource, the insurer may focus on improving the efficiency for that particular product.
The company could consider introducing a modified product that requires less underwriting. It could even stop selling that particular product.

The costs will be higher for some of these proposals initially (implementation costs) but should be lower in the longer term.

[7]
[Total 20]

Part (i) was generally well answered with most candidates discussing many relevant points. However, only the better candidates tended to mention the effects of any options on the products or the effect on sales channels.

Part (ii) was also well answered although few candidates discussed considering whether particular products incurred most of the underwriting costs or whether products could be modified to reduce underwriting costs.

END OF EXAMINERS' REPORT