EXAMINATION

April 2006

Subject ST1 — Health and Care Specialist Technical

EXAMINERS' REPORT

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

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Chairman of the Board of Examiners

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Comments

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. There was often a lack of sufficient detail in the answers with candidates failing to realise that each valid point in the answer would normally attract 0.5 marks with the more basic elements e.g. details in a pricing basis such as age and sex, would attract 0.25 marks.

Candidates should also recognise that whilst reinsurance can play a valuable role in the UK health insurance market, reinsurance is not a panacea for all evils.

1 Factors by which the data might be analysed to investigate the apparent deteriorating trend in lapse rates include:

Type of contract (e.g. reviewable/guaranteed, individual/group)
Duration in force
Year of writing
Sales method
Agent
Target market
Premium frequency
Premium size
Premium payment method
Original contract term
Sex/age/smoker status
Claims experience/NCD
Deferred period for IP, LTC
Underwriting
Occupational class/socio-economic class
Location

The data would be needed by time periods such as calendar year to examine trends.

2 (a) To show the financial effect of divergences between the valuation assumptions and the actual experience, exposing which assumptions are more financially significant.

To show the financial effect of writing new business.

To provide a check on the valuation data and process, if carried out independently.

To identify non-recurring components of surplus, thus enabling appropriate decisions to be made about the distribution of surplus to any with profit policyholders so entitled or to shareholders.

To provide information on trends in the experience of the company.

(b) To validate the calculations, assumptions and data used.

To reconcile the values for successive years.

To provide management information.

To provide detailed information for publication in the company's accounts or those of any parent company, in particular the value of any new business taken on by the company.

To identify profitable lines of business.

To assess the yearly return on capital.

3 The question talks about morbidity and for LTC (as with IP) we are interested in both claim inceptions and claim terminations.

Recoveries will be low but there will be many terminations due to death.

For claim inceptions we require the following to determine the exposed to risk:

Policy commencement date (or duration from entry)
Date of lapse/LTC claim/date of death, if applicable
Level of initial benefit
Basis for calculating current benefit (indexation or level policy)
Single or joint life policy event

For claims we will require:

Date of claim event
Date of notification (to enable IBNR to be calculated)
Cause of claim

We will need to subdivide the results in to homogeneous groups. We will need:

Date of birth
Sex
Rated information (at least sufficient to divide policies between standard and substandard risk) — also used to determine expected claims.
Premium frequency (likely to be monthly, annual, single)
Benefit trigger (2/3 ADLs etc.)
Geography/territory
Source of business

For LTC, pricing is unlikely to depend on smoker status or occupation class.

For a termination analysis we require the following additional exposure information:

Date of claim termination
Cause of termination (recovery or death)
Benefit basis during claim
Date of notification of claim termination (for IBNR terminations)

Additional information that would be required for any analysis:

Full details of the products
An expected basis for incidence and terminations
Policy number to link claims to exposure
Changes in underwriting practices and claims processes

4 (i) The reinsurance sum at risk is

*800 * £3,000 * .75 + 150 * £4,000 *.75 + 50 * £4,000*
(maximum retention bites) = 2,450,000

(ii) To calculate reinsurance premium

Ignoring the lapses:

Policies are age 40 next at outset. Assume that policy anniversaries are spread uniformly throughout the policy year then the average rate applied is
(1.3 + 1.4)/2 = 1.35

Premium with no lapses is 2,450,000 * 1.35/1,000 = £3,308

Lapses are uniform so, on average, 95% of business in force

Reinsurance premium = 0.95 * £3,308 = £3,142

Assume that premiums are paid on all policies that are in claim
Assume no changes in sum at risk
Assume that lapse rates independent of size of policy/sum at risk

(iii) For claims on which the reinsurer would be required to make payment we are concerned with date sick during 2005. Date notified, date accepted or date claim payments commence are irrelevant. Hence we are only interested in claims C, D and E. Policies have a 3 month deferred period. Claim D has recovered during the deferred period and should be excluded even though it has been accepted as a valid claim. So the answer is C and E.

(iv) **Reinsurance payment**

Reinsurer is responsible for 75% of the risk

Claim C was sick 7 months, so 4 payments
Claim E was sick for 4 months, so 1 payment

(4/12 * 3,000 + 1/12 * 3,000) * .75 = £937.50

(v) **Other factors**

Claims information may be incomplete because of IBNR.

Reinsurer needs to consider expenses, cost of capital, tax, profit criteria and investment earnings.

5 The available options are:

Load premiums (per mille, % load, age adjustment)
Defer cover
Decline risk
Offer different cover
Offer to reinsurer facultatively with zero retention
Exclude specific perils
Accept as "loss leader" for business purposes

This part of the question required the candidate to use common sense and should not require detailed medical knowledge. The question asks for reasons.

(a) Lots of potential policyholder will have a history of knee pain so deferring cover, declining the risk or offering to reinsurer are unlikely to be good options.

If the question specified a short deferred period then a longer deferred period may be appropriate.

Depends on occupation.

Most likely options are load the premium or apply a specific exclusion.

(b) Can't really defer.

Decline likely to be too extreme.

Too common to pass to reinsurer.

Cannot really exclude cancer as it is such a large component of the cost.

Regulation may prohibit use of family history.

This suggests that loading premiums is the only option.

(c) The concern here is the accident risk.

This a rather specialist risk and facultative reinsurance may be the best approach.

Alternatives are load premiums (charge per mille extra).

Could exclude TPD cover, or change the TPD definition, but other exclusions likely to be difficult to split the risk.

Exclude deaths from racing accidents.

No obvious other cover.

(d) Decline.

This could very easily be Alzheimer's and if this were the case the claim cost would be substantial.

Depends on claims trigger for memory loss.

It is unlikely (even if possible) to be cost effective to try to determine the cause of the memory loss.

6 (i) **Advantages include**

A worthwhile addition valued by customers, giving competitive edge.
Easily identified by the public.
Readily communicable to sales people.

Disadvantages include

Difficult to draft wording for a permanent mental illness addition.
Most mental health problems are chronic with few acute episodes.
so insured is able to work with little loss of income.
Some genetic bias in mental health.
Good relevant morbidity data hard to find.
There will be many potential claims declined.
Mental health problems rise with age.
Prime target market under age 45 so addition less relevant.
Difficulty in underwriting/exclusion.
Leading to anti-selection
especially if no one else is offering it.
Difficulty in approving claims
— no independent test.
Might not be able to get reinsurance.
Increased premiums in competitive market.
Expenses of change to claims processing, underwriting etc arising from two separate contracts.

Marks were given for recommending whether or not the mental health benefit should be added, provided suitable reasons were given to support the recommendation made.

(ii) **Morbidity/Mortality**

Analysis of the company's experience is of no use as this is an addition.

Sources

Industry data (such as CMI reports in the UK) for IP.

Data from reinsurer.

More likely to be for IP.

Data from overseas.

Population data
e.g. hospital episode data

Published data will probably need adjustment for the particular circumstances of the company and its products.

Need to consider trends in experience, especially for morbidity in IP.

Rates included in reassurance terms would probably be followed.

Data needs to be interpreted with care.

Comparison of the proposed target market and that in the data is important.

Almost certainly likely to use the experience to generate an adjustment to a standard table.

7 (i)

Replacement ratio

Post claim to pre claim ratio
Net of tax
Higher replacement ratio leads to higher claims inceptions and lower claim terminations
and hence higher premiums
Typical maxima are 60% or 75%

Deferred period

Initial period of sickness during which benefit will not be paid
Commonly 4, 13, 26 and 52 weeks
Lower deferred period results in more claims and hence higher price
May help integration with employer or state benefits
Linked claims clause — waive deferred period if recurs within 26/52 weeks

Expiry age/term

Often retirement e.g. 60 or 65
or may be fixed term
E.g. alongside a mortgage
So typical term is 25/20 years
Longer term/older age means higher potential claim amounts and hence higher premium

Escalating premiums and benefit

Benefits can be level e.g. to meet a specified mortgage payment
Increasing benefits more common as link to salary
Fixed percentage or linked to an index
Typical values 5% or RPI (usually capped)
May have different escalation depending on whether in claim or not
Higher escalation means higher premiums
Partial proportionate benefits
GIOs

(ii) **Occupational definition**

Rating factor

Usually 4 or 5 classes
Direct impact on price

Claim event definition

Occupation dependent (e.g. inability to perform own/any occupation)
(Or inability to perform various tests (PCAs/ ADLs etc.))
More limited definition (own occupation) will result in higher claims (and hence higher premiums)
May be required to notify all changes to occupation
Need to report occupation changes may be more important for some occupations than others
Impact on premium unclear as targeting of poor risks and reduction in selective lapses may be offset by increase in admin costs
Some special IP schemes are occupation dependent —
e.g. locum insurance for doctors and dentists
Occupation may impact on the term of contract or expiry age e.g. professional footballers
Occupation may impact on the availability of GIOs/continuation options/renewability options
Occupation may necessitate certain work-related exclusions

(iii)

Guaranteed/reviewable rates

May be fully guaranteed or there may be no guarantee at all
Or often guaranteed for an initial period e.g. first 5 years
Difficult to review in practice because of market pressures
Can also result in selective lapsing
Higher level of guarantee implies higher premium
There may be a maximum increase in premium on review

There may be benefit guarantee (e.g. varying benefits)
Expense charge guarantee

Guaranteed insurability

GIO — policyholder can increase sum assured, at standard rates, on the occurrence of certain pre-defined events
Not common on IP as benefit usually linked to salary
May be available if policy linked to a mortgage
Generally more options/guarantees means higher premiums
Term extension guarantee
Guaranteed renewability of contract
Guaranteed convertibility option

8 (a) Key risks associated with this proposal include:

Mis-selling

Key risk is that client does not get appropriate cover.

The insurer's relationship with client is dependent on party host.

There is an overall risk that the "party" environment is not conducive to purchase of financial products.

- Insufficient time to discuss on a one-to-one basis and hence no understanding of individuals needs
- Peer pressure
- Purchases may be induced by alcohol
- There may be product bias (commission related)
- Inappropriate product — host does not understand products
- Inappropriate sales message — products may be represented inappropriately (e.g. relating to guarantees)
- There may be a high number of regulator complaints

Over selling

Hosts may sell at too high sums assured resulting in higher commission
Less relevant for IP/PMI as usually salary multiple
Mitigation and monitoring points as for mis-selling

Non-receipt of premiums

May not receive premiums from party hosts

Business churn

Annual events so annual resell likely

Anti selection

Party hosts may target friends/family with existing need

High rate of policy cancellations

Risk that inappropriate sales lead to policy cancellations — as for mis-selling
Risk that host encourages purchase of products followed by subsequent cancellation once commission has been received

Distribution costs go up due to turnover of hosts

Risk that there will be a high turnover of hosts and significant training costs will be wasted

Risk that the portfolio of customers will not be diverse

Concentrated on customer profiles that would attend these parties
Anticipated market may be different to actual purchasers

Impact on other distribution channels

Non-disclosure risks

e.g. reluctance of purchasers to disclose medical information to a friend

Risk that distribution approach is not successful

Reputational risk

Risk that regulator withdraws "approval" at later stage

General points

Risk heightened if no competitors are adopting this approach

(b)

Mis-selling
How this can be mitigated

Party host training

- customer healthcare needs
- customers ability to pay
- products and acceptance procedures
- good, clear supporting literature and sales aids

Strict vetting of party host
Ensure appropriate commission, not introducing product bias
Have an employed rep sell products rather than party host
Have cooling off period/use as awareness raising exercise and complete sale at later date

Monitoring — keep records of

- Volumes by party host
- Persistency by party host
- Complaints by party host

Over selling

Mitigation and monitoring points as for mis-selling

Non-receipt of premiums
Mitigation

Direct payment from policyholder to insurer
No commission to party host unless premiums received
No cover for policyholder unless premiums received

Business churn
Mitigation/monitoring

Ensure existing business proposition is comparable with new business proposition
Prohibit annual resell
Do not pay commission where cover is already provided

Anti selection
Mitigation

Underwriting
Training/awareness for party hosts
Increased price for policies sold through this channel

Monitoring

Claims experience by party host
Claims experience for all policies sold through this channel

High policy cancellations

Monitor policy cancellations by host
Apply drip-feed commission
Or claw back if up-front lump sum paid

Distribution costs go up due to turnover of hosts
Monitor turnover rates of hosts

Mitigate by
Targeting profile of hosts with low turnover
Remunerate to encourage low turnover e.g. portfolio based commission

Risk that the portfolio of customers will not be diverse or as anticipated

Mitigate by ensuring that this is not sole distribution

Risk that distribution approach is not successful

Monitor profitability of channel as part of regular analysis
Ensure that this is not the sole mechanism of distribution

Reputational risk

Monitor customer feedback
and press/industry comment
Launch under separate brand
Withdraw if adverse comment

Risk that regulator withdraws "approval" at later stage

Ensure that this is not the sole mechanism of distribution

General risk mitigation points

Undertake post sale compliance checks
Do not pay commission if inappropriate sale
Don't implement this new distribution mechanism

END OF EXAMINERS' REPORT