EXAMINERS' REPORT

November 2020 examinations

Subject F103 — *General Insurance*
Fellowship Principles

INTRODUCTION

The attached report has been prepared by the subject's Principle Examiner. General comments are provided on the performance of candidates on each question. The solutions provided are an indication of the points sought by the examiners, and should not be taken as model solutions.

QUESTION 1

i. a. (a) = $0.2 \times \$10m = \$2m$

    b. Claim left after A = $\$10m - \$2m = \$8m$
        Hence (b) = $0.75 \times \$8m$
        $\qquad = \$6m$

    c. (c) = 4, since XYZ retains as little as possible on each risk

    d. (d) = $0.2 \times \$300m = \$60m$

    e. Claim left after A = $\$300m - \$60m = \$240m$
        Hence (e) = $0.8 \times \$240m$
        $\qquad = \$192m$

    f. Claim left after A&B = $\$240m - \$192m = \$48m$
        Excess Point for XL with C = $1.1 \times \$20m = \$22m$
        Upper Limit for XL with C = $1.1 \times \$30m = \$33m$
        Hence (f) = $0.8 \times (\$33m - \$22m)$
        $\qquad = \$8.8m$

    g. Excess Point for XL with D = $1.1 \times \$40m = \$44m$
        Upper Limit for XL with D = $1.1 \times \$70m = \$77m$
        Hence (f) = $0.7 \times (\$48m - \$44m)$
        $\qquad = \$2.8m$

ii. XYZ retains as little as possible on each risk, subject to treaty limits, so should thus have used all 4 surplus lines if possible.

The fact that it did not implies that there was a minimum retention limit (R) on the treaty such that 3 lines was all that was possible.

The EML remaining after A was $20m, and thus:

$\qquad$ R = $20m / (3 + 1) = $5m

iii. The main problem with the non-proportional cover is that there is a gap between the layers of cover provided by C & D. The gap is in respect of net claims between $30m & $40m.

XYZ should fill the gap with a new XL layer covering 75% (say) of claims between $30m & $40m (i.e. 75% of $10m in excess of $30m).

Overall this question was reasonably well answered.

QUESTION 2

i. a. Uncertainty as to the outcome of the business already written.

- At any given time, an insurer will have claims that have been reported but have not yet been settled, and there will be uncertainty as to when they will be settled and the amount for which they will be settled.
- Even for the claims that have been recorded as having been settled, there is a risk that they will be re-opened and further payments will have to be made.
- There could also be incurred but not reported claims and uncertainty around the number, cost and timing of payments.
- There will be claims uncertainty relating to periods of unexpired risk.
- The expenses still to be incurred for in-force business will be uncertain.
- There will be uncertainty relating to ongoing claims expenses for policies that have lapsed.
- The future performance of investments held to back these liabilities affects the financial outcome of the business already written.
- There could be delays before new premium rates can be implemented.

b. Uncertainty as to the premiums the insurer needs to charge in the future:

- This is impacted by the extent to which past experience will be relevant to the future as used in determining future premium rates.
- The insurer may need to adjust recent experience to allow for exceptional claims that have occurred or failed to occur.
  ➢ Since this insurer does not have many years of historical data, the claims experience might not be fully developed and assumptions will be required as to the ultimate amount of claims.
- Changes in assumptions may be required as projections need to extend further into the future.
- An appropriate choice needs to be made for rating factors and premium relativities, i.e. the relationships between the premiums quoted for different rating cells.
  ➢ This could be difficult to determine with a given level of confidence since the volume of data for this new insurer may not be enough for results to be statistically significant.   `
- An insurer, in setting premium rates, needs to estimate the claims and expenses it expects to pay out and the investment income it expects to earn on its initial

capital and premium income. It is very unlikely that the insurer will get these estimates exactly right.

- The risk of inadequate premiums is increased in price competitive markets if the insurer needs to keep margins to a minimum to gain market share.
    - ➢ This new insurer might also choose to offer significant discounts initially to gain market share.
- The risk will also be greater if the insurer has inadequate data upon which to base its premium rates as would most likely be the case for this insurer due to its limited insurance history.

ii. External data sources:

- Industry wide data collection schemes, e.g. SAIA reports.
- Data from the regulator, such as catastrophe data.
- Publicly available information such as financial reports, published premium rates, crime reports.
- Market reports, for example from auditing firms.
- Risk reports that can be used for underwriting.
- Geographical data such as floodplain locations, lightning data, location of police/fire stations etc.

iii. Problems of using external data:

- Data will be less detailed and flexible than internal data.
- Data may be out of date.
- There may be errors in the data as many companies may be contributing.
- Not all companies contribute, so the data may not be a true reflection of the industry as a whole.
- The data may not relate well to the specific business written by the company.

Candidates needed to know their bookwork well and be able to apply the knowledge to score well on this question. Most could do one or the other, but few managed to excel at both.

QUESTION 3

i. Sales/underwriting restrictions:

- Restrictions on the type and amount of business an insurer is authorised to write.
    - ➢ This ensures that companies have appropriate expertise and capital to write the business classes.
- Limits on contract terms and premium rates.
    - ➢ This ensures premium rates are sufficient to meet future claims and ensures that policyholders are not overcharged.
- Restrictions on information that may be used in underwriting and premium rating.
    - ➢ This is for ethical / anti-discrimination reasons.

- Requirements to file / publish premium rates before they can be used.
  - This prevents anti-competitive practices and protects policyholders.
- Restrictions on countries an insurer can write business in.
  - This prevents exposure to volatile risks and unfamiliar legal systems and regulations.
- Mandatory restrictions on cover (e.g. No deductible).
  - This protects policyholders and claimants and ensures consistency of cover.
- Prohibiting illegal products from being sold.
  - This discourages illegal practices.
- Requirements to offer certain cover (e.g. motor third party liability);
  - This promotes social responsibility and helps the economy as a whole.

ii. Designing the scenario tests requires a mix of skills to provide an understanding of the business, identify the risks, and perform the modelling and analysis. Expertise will be needed from actuarial, underwriting, finance, risk management, and other functions within a company. Companies may need to consider the external views of supervisors, consultants, and rating agencies.

The nature and extent of the tests will, among other things, need to take into account the company's solvency position, market position, lines of business, investment policy, business plan, and general economic conditions.

There are various modelling considerations:

- Frequency of analysis:
  The analysis must be conducted regularly to reflect the changing characteristics of a portfolio. At a minimum, this should be annually in conjunction with the business-planning exercise.
- Forecast period:
  The time horizon needs to be long enough for the effects of the stress and scenario tests to be captured, which for a non-life insurance company is a minimum of two years. In most cases the time horizon will be up to five years.
- Forecast intervals for the cashflows:
  Intervals should be short enough to provide useful information, while not becoming too short to become impractical and spurious. Monthly cashflow modelling is common.
- Dependency:
  Any analysis should take account of the complexity of a company's business operations and the correlation between risk factors.
- Modelling techniques:
  A deterministic approach, using the probability distributions to determine the extremes of events, enables greater control over the ripple effects and management actions that may follow events. However, a stochastic approach based on economic capital models is more advanced, allows for dependencies, and will provide an overall probability distribution of the company result. A combination of deterministic and stochastic modelling is needed, keeping in mind the limitations of each approach.

- Model output:
  This should be sufficient to produce the income statement, balance sheet, and solvency calculation for each year-end in the period under consideration.

It is important to consider consequential effects and not just to analyse events in isolation. Examples of some of these knock-on effects are:

- Ripple effects:
  The direct and indirect effects that are assumed to follow the event, often with some time delay, e.g. a large catastrophe loss could lead to an increased probability of reinsurer insolvency and hence higher credit risk.
- Management action:
  Events do not happen in isolation and here management action is assumed to occur in response to an adverse scenario, e.g. bad loss experience leads management to increase premium rates in subsequent time periods.
- Regulatory action:
  Some adverse scenarios will cause some form of regulatory response, e.g. a failure to meet the minimum regulatory capital requirement.
- Rating agency action:
  Some adverse scenarios may lead to rating agency action with consequential follow on effects, e.g. a significantly bad underwriting loss results in a large capital reduction, the extent of which leads to a rating downgrade with negative implications for future premium volume.

iii. The relative advantages of a deterministic model are:

- Usually easier to design and quicker to run.
- More straightforward to quicker to build.
- Less computation power needed.
- So can introduce more detail, e.g. complex features of reinsurance programmes.
- Can intelligently select limited scenarios we are interested in.
- Could be more efficient than stochastic scenario where we hope a particular important scenario is generated.
- May better model relationships as can consider cause and effect rather than relying on correlations.
- Stress and scenario tests are commonly used for those risks that cannot easily be modelled quantitatively and where more subjective judgment is required.
- This allows concentration on the more important areas of the distribution of outcomes for the key risks when a full specification of the distributions is subject to substantial potential error.
- Can be integrated more closely with risk management "what-if" analysis and scenario planning.
- Can be easily linked to the risk register, integrating it more easily into risk management.
- Easy to communicate and give users comfort in their reasonableness.

- Especially if design stresses and scenarios in conjunction with users of results which could increase the ownership users would perceive themselves having over the model.
- Easier to explain as a concept than probability distributions.
- Increased perceived ownership and understanding is likely to lead to the model being more widely used and adopted.
- Good for checking / validating a stochastic model.
- Can be used with a stochastic model to provide additional context.

Part (i) was straightforward bookwork and generally well answered. Some candidates missed out on easy marks by not putting down enough points.

Part (ii) was poorly answered. A number of candidates made the mistake of focusing on data preparation or the characteristics of a good model rather than discussing the design of scenario tests and the modelling considerations one must take into account. Another mistake was talking about modelling in general without linking the points back to the design of scenario tests.

Part (iii) was generally well answered by the better prepared candidates. Most candidates didn't generate enough points to get full marks. Some candidates made the mistake of providing both advantages and disadvantages when the question clearly asked for only the advantages.

QUESTION 4

i. a. Exposure measure – the basic unit used by the insurer to measure the amount of risk insured over a given period.
    b. Risk factor – a factor that is expected, possibly based on statistical evidence, to affect the level of risk for a particular policy.
    c. Rating factor – a factor used in the rating process either because it is a measurable risk factor or because it is a proxy for a risk factor.

ii. How information gathered can assist in rating:

- ID number:
  - Will provide driver's age.
  - Age is a proxy for driving ability, with younger drivers having more accidents
  - Age may be a proxy for distance driven (with the elderly driving less)
  - ID number will indicate gender.
  - There may be experience differences between male and female drivers (in particular when combined with age).
  - Could allow access to credit applicant's record.
- Card details:
  - Applicant's bank may be a rating factor.
- Make and model of car:
  - Provides market value of vehicle/sum insured.
  - Make and year of vehicle can indicate cost of repairs/replacement.
  - Can be a proxy for distance travelled.

- ➢ Can also be a proxy for how aggressively the car may be driven.
- ➢ Some vehicles may have better safety features than others that could lead to reduced frequency and severity of claims .
- ➢ New vehicles, and delivery-type vehicles may be driven more.
- Address:
  - ➢ Gives an indication of theft risk.
  - ➢ Gives an indication of exposure to accidents (density of traffic).
  - ➢ Gives an indication of exposure to weather related events or potential increase to accident events owing to condition of the roads.
- Years having had licence:
  - ➢ A proxy for driving ability.
  - ➢ Drivers with more experience should have fewer accidents.

Many candidates could not distinguish between an exposure measure and a risk factor. Most candidates either scored well on bookwork or on the application of bookwork, with very few students scoring well on both.

QUESTION 5

i. The technical reserves are held to cover the liabilities relating to existing policyholders.

These liabilities can be split into two main categories:

- Past: Liabilities in respect of accidents or losses from events that have occurred prior to the accounting date.
- Future: Liabilities in respect of future insurance cover from policies for which premiums have already been received.

Capital requirements are set aside to allow the insurer to withstand losses (from whatever source).

While technical reserves are held to cover liabilities (either past of future) from existing policyholders, capital requirements are held to protect against losses from all sources, which includes the risk that reserves are inadequate.

Other risks that capital is held for include:

- Market risk
- Credit risk
- Operational risk
- Group risk
- Liquidity risk.

Capital requirements are calibrated to determine losses from extreme events (for example, those expected to occur once in every 200 years) while technical reserves are generally held on a best estimate basis with some allowance for a margin.

ii. Reasons for modelling claims:

- For reserving in financial reporting.
- For reserving in statutory reporting.
- To estimate capital requirements.
- To estimate tax liability.
- To estimate the effect of changing the level of cover by changing the level of deductibles or excesses.
- To demonstrate the effect of reinsurance.
- To estimate likely variability of claims experience and adequacy of reserves.
- To determine and allocate capital to different classes/categories of business.
- To value portfolios for purchase/sale.
- To estimate cash flow to determine investment strategy.
- Experience investigations to draw out trends that may impact profitability.
- Budgeting and business planning for future years, including staff planning.

Only a few candidates scored well in part (i). Many candidates failed to distinguish between the key characteristics of technical reserves and capital requirements.

Part (ii) was generally well answered.

QUESTION 6

i. Risk is the possibility of outcomes being worse than expected.

   Uncertainty is the inability to predict the future with confidence.

ii. a. Claims experience:

- Variability in the size and frequency of claims owing to the measures employed by the Government.
  - Fewer motor claims from accidents as people are forced to stay at home.
  - Potentially increased business interruption claims due to forced closure of stores.
  - Potentially increased property damage claims on the business insurance policies owing to increased crime due to stores being unattended.
  - Reduction in property loss claims due to business not being occupied.
  - Inflation may vary (over the short and long term)
  - Accumulation of risk is pertinent as the whole country is affected by lockdown regulations.
- Delays between the incidents giving rise to claims and the reporting and ultimate settlement of the claims. Delays could be influenced by:
  - Reporting delays – Business owners may only find out about property damage losses once the measures employed by the Government are over.

- Settlement delays – There may be disputes as to what perils are covered under business interruption. Such disputes may trigger court cases which could increase settlement delays.
- Interpretation of wording:
  - The definition of business interruption may not be clear and hence force closure by Government agencies may not be specifically excluded.
- There may be increased anti-selection by policyholders who have taken out more business insurance to protect against the risk of closure once news of the infectious diseases was announced and prior to the measures being in place by the Government. Conversely CIC may see a decrease in take up of motor comprehensive policies owing to people being at home
- There may be increased fraudulent claims owing to many people (employees of non-essential businesses) not being paid.
- Reinsurance risks
  - Reinsurance might not cover the specific peril under consideration

b. Expenses:

- Business operation expenses:
  - Increased expenses from setting up the ability for staff to work from home such as provision of data and laptops etc.
  - Increased ongoing expenses as staff continue to operate from home (internet allowances, work from home stations, etc.).
  - There may be reduced expenses such as utilities and provision of consumables owing to staff not going into offices.
  - Rental expenses may be able to be reduced in the medium- to long-term, depending on lease agreements.
- There may be a risk that too many high commission policies are sold in the week prior to the measures being in place, for example if higher commission was levied by brokers on business insurance than on motor policies.
- Increased legal costs.
  - Repudiation of claims based on exact policy wordings could result in additional legal fees further down the line.
  - They may need to employ crisis management team.
- There may be an increase in inflation, particularly as it relates to claims assessor costs once the measures by the Government are over as a result of increased demand for claims assessors.

iii. Business Risks:

- Failure of a third party:
  - Policyholders or brokers may delay in paying premiums or not at all.
  - If the peril is covered by reinsurers, strain on reinsurers (depending on exposure across the globe) may mean increased risk of default.
  - Failure of tech service providers that may reduce the ability of employees to work effectively from home and hence reduced productivity.

- There may be increased competition from other insurers with the ability to invest additional funds to offer innovative solutions or benefits that CIC may not be able to match as a result of its capital position. For example, if other insurers offer ad hoc cashbacks on motor policies owing to reduced claims experience in an attempt to increase market share.
- New business and lapses:
  - New business volumes for motor and business insurance may decline.
  - There may be increased risk of lapses as businesses struggle to stay afloat owing to the measures and consequently their employees not getting paid.
- Operational risks:
  - With staff working from home there is additional risk of operational losses (e.g. administrative, compliance)
  - An increased number of claims leading to strain on staff and increased operational risk.
  - Strategic risk whereby management does not respond quickly enough, or appropriately to the outbreak and its effects.
- Solvency risks
  - CIC's free assets are barely sufficient to cover its statutory solvency requirement and so there is a risk that it may run out of capital to continue to support the business.
  - CIC may be able to raise capital from its shareholders or make use of debt finance, however given the expected uncertain economic environment as a consequence of the disease, this may not be possible or may only be possible at an increased cost, hence increasing uncertainty.
- Cyber risk increases with work from home, particularly as more functions convert wholly to online.
- Moral hazard may be observed, particularly if companies know they have cover for business interruption.
- Compliance to regulation as it emerges, particularly with regards to limiting the spread of the virus.

Candidates struggled with pure bookwork, with very few getting full marks.

Those who were able to generate a breadth of ideas (not just details regarding one or two topics) generally performed well on this question.

QUESTION 7

i.   a.   Claims Ratio = Claims Incurred / Premiums Earned
         2018: R620m / R700m = 88.6%
         2019: R660m / R750m = 88.0%

     b.   Profit Margin = Insurance Profit / Premiums Earned
         2018: R20m / R700m = 2.86%
         2019: R25m / R750m = 3.33%

c.   Return on Capital Employed (ROCE) = Post-tax profit / Free reserves at start of year:

Post-tax profit:
2018: R19m (Dividends + Retained profits = R6m+R13m)
2019: R23m (7+16)

Free reserves (i.e. Shareholder Funds) at start of year
2018: R380m
2019: R450m

Therefore, ROCE:
2018: R19m / R380m = 5.0%
2019: R23m / R450m = 5.1%

d.   Solvency Margin = Free reserves at end of year / written premiums:

2018: R450m / R715m = 62.9%
2019: R345m / R770m = 44.8%

ii.   Comment on the variability:

- Despite the lack of reinsurance, claims ratio, profit margin and ROCE all suggest that claims, expense and investment income experience are all stable.
- However, the solvency margin has fallen significantly, and this is due to the revaluation reserve (which accounts for unrealised capital gains/losses):
  - The large increase (R80m to R137m) in 2018 is due to capital appreciation on assets (of approximately 6% p.a.);
  - The large decrease (R137m to R16m) in 2019 is due to capital losses on assets (of approximately 12% p.a.).
- This suggests the company has invested in assets with volatile values, and the suitability of this depends on:
  - Whether the company's free reserves are sufficient to absorb such volatility – while the company appears to have a strong solvency position the fall in solvency appears to be quite large and the company might be in danger of not meeting statutory minimum capital requirements;
  - Whether the assets are suitable to match the liabilities.

iii.

	R millions	%
Investments (% Assets):		
Cash / Money market	350	41%
Fixed interest	200	24%
Equity	150	18%
Equity (foreign)	100	12%
Listed property	50	6%

Suitability of investments:

- The nature of liabilities is a key determinant of whether assets are suitable for matching:
  - ➢ Property claims are linked to inflation:
    - Buildings cover will be affected by increases to the cost of materials and labour;
    - Contents (or stock) cover will be affected by increases to the cost of replacing lost or damaged stock;
    - Cost increases are likely to be higher than CPI;
    - These requirements imply that matching investments should produce real returns (e.g. equities and property);
    - For short-term real liabilities it is also reasonable to invest in cash (which is generally expected to produce returns that follows CPI) and short term fixed interest stocks (unexpected inflation is unlikely to differ much from expected inflation, and even if it does differ it is unlikely to be of significant magnitude).
  - ➢ The term of property claims is short term – from a few weeks to a few months (the time to repair damaged buildings or verify lost stock levels).
  - ➢ As cover is for local businesses, the currency is local.
    - However some costs may be related to foreign currencies e.g. for imported stock or building materials.
  - ➢ Commercial property claims can be very large and hence there could be considerable variability and uncertainty of claims experience.
    - This variability requires investments to be highly liquid and have stable market values (which would make equity and property investments unsuitable).
- The solvency level of the insurer is also a key determinant of whether assets are suitable:
  - ➢ Large free assets (relative to required capital requirements) provide freedom to move away from a matched investment position in order to pursue higher expected returns by investing in volatile assets;
  - ➢ In this case the insurer appears to have some freedom, however it is difficult to be certain without knowing the minimum capital requirements.
- The cash and fixed-interest stock investments appear to be sufficient and suitable for matching the liabilities (R550m).
- It would appear that the remaining assets (R300m) are being held to match the shareholder funds.
  - ➢ These assets have volatile market values, however they should also be expected to produce the highest returns for shareholders.
  - ➢ These assets should be reasonable for shareholder funds, provided that:
    - Minimum capital requirements are unlikely to be breached.
    - The assets are unlikely to be sold at a time when values are depressed.
      - The absence of reinsurance increases the likelihood that free assets may be needed to meet adverse claims experience which makes volatile assets inappropriate.

- The resulting solvency margin volatility is within management risk tolerance.
- The suitability of the assets is also determined by regulations (e.g. limits per asset class) and whether they adhere to the rules.

Overall this was a well-answered question.

Part (i) as a simple accounting ratios question, which was answered well by most candidates. However, a number did not know their bookwork well enough and made some mistakes.

Part (ii) was disappointing in most cases. Not many candidates realised that the revaluation reserve was the source of volatility, and many of those that did see this did not know what this reserve represented, with a number of candidates linking this to claims experience.

Part (iii) was well-answered by most candidates.

QUESTION 8

i. Distorting effects of the loss ratio method and possible remedies:

Inappropriate benchmarks:

- The benchmarks used may not be appropriate as the nature of the business written may be different from that to which the benchmark relates.
- This could be due to differences in distribution channel, policy terms and conditions, business mix, etc.
- Ensure that the most suitable benchmark is selected and make adjustment for any known differences e.g. adjusting loss ratio for different premium rating strengths.

Subjective assumptions:

- The underlying assumptions can be subjective especially when based on soft information e.g. underwriter's opinion.
- We should aim to understand the business being written and form a view on the reasonableness of the underwriter's opinion or subjective adjustments.

Changing underwriting or claims environment:

- Ultimate loss ratios from previous years may be unsuitable to use if there have been material changes to the claims or underwriting environments.
- Suitable adjustments to the loss ratio could be made e.g. increase the loss ratio by an estimated percentage if it is known that claims experience has worsened.
- The underwriting cycle will impact premium rates and so distort the loss ratio used. Premium rates could be adjusted so that these effects are reduced.

Unusual experience:

- Unusually light or heavy claims experience may result in an unreliable loss ratio. Using an average of historical loss ratios over a suitable period should improve the reliability of the selected loss ratio.
- Large or catastrophic claims may distort the loss ratio. These should be removed from the data used to derive the attritional loss ratio. A separate loading for large and catastrophic claims could be added to the derived attritional loss ratio.

Reinsurance:

- If the loss ratios used are net of reinsurance then changes to reinsurance arrangements may distort the loss ratio.
- Where possible the loss ratio used should be gross of reinsurance, and explicit adjustments for reinsurance arrangements made to derive the net loss ratio.

ii. Net claims reserves excluding catastrophes (R'000):

Acc. Year	Adjusted ultimate loss ratio (ULR)	Gross ultimate claims (Rm)	Gross claims reserves (Rm)	Net claims reserves (Rm)
2018	78.4%	262	79	16
2019	73.2%	293	146	29
Total		555	225	45
	Market ULR × (1/1.1) × (1.15)	Adjusted ULR × GEP	Ultimate claims – claims paid	Gross claims reserves × (1 – 80%)

Total net claims reserves (Rm):

Net claims reserves (excluding catastrophes)	45
Net catastrophe OCR	5
Total	50

Here the net catastrophe OCR for the R80m outstanding claim is calculated as:

	Rm	
Gross catastrophe OCR	80	
Reinsurance recoveries :		
Quota share	-64	
Catastrophe XOL	-11	
Net catastrophe OCR	5	

iii. Three areas where you could perform stresses and possible stresses :

Reinsurer default:

- The capability of reinsurers to honour their obligations in a timely manner could be stressed.
- Possible stresses include assuming:
  - The largest reinsurer defaults.
  - All reinsurers' credit ratings are reduced by one notch.
  - A delay in the settlement of reinsurance recoveries.

Loss ratios:

- The loss ratios assumed in the loss ratio method could be stressed.
- This may include:
  - Using different benchmark loss ratios which result in a significant deterioration in the claims experience.
  - Assuming that your company's claims experience is significantly worse than the market e.g. 25% above the market.
  - Assuming that your company's premium rates are significantly less than the market e.g. 25% below the market.

Inflation adjusted chain ladder method assumptions:

- The assumptions underlying the inflation adjusted chain ladder method could be stressed.
- This may include:
  - Using alternative claims development factors which result in a higher level of ultimate claims.
  - Increasing the inflation assumptions to reflect a stressed scenario.
  - Including a subjective adjustment for latent claims on liability business.
  - Increasing the allowance for direct claims' handing expenses.

Catastrophe claims reserve

- The assumptions underlying the calculated R80m outstanding reported claims reserve could be stressed. For example, by assuming that the average claim settlement amount is increased by 25%.
- The assumption that there is no IBNR for catastrophes could be challenged. High level assumptions of reporting delays could be made to calculate a possible IBNR.

Part (i) was generally well-answered. Candidates who separately analysed distortions in claims and premiums were able to generate a wide range of points, and thus scored well.

Part (ii) was generally not well-answered, despite it being a fairly straight forward claims reserving calculation. Some candidates, however, managed to score full marks.

Part (iii) was generally poorly answered. A surprising number of candidates provided stress tests for unexpired risk reserves despite the question referring to claims reserves which relates to expired risk. Candidates who scored well first identified the underlying assumptions made in the claims reserving techniques to calculate the net of reinsurance claims reserves, and provided stress tests for each.

END OF EXAMINERS' REPORT