INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

April 2016

Subject SA3 – General Insurance Specialist Applications

Introduction

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

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

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

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

F Layton
Chair of the Board of Examiners
July 2016

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

1. The aim of the General Insurance Specialist Applications subject is to instil in successful candidates the ability to apply knowledge of the United Kingdom general insurance environment and the principles of actuarial practice to providers of general insurance in the United Kingdom.

2. Our expectation of a passing candidate at this stage is that, broadly, they should appear capable of stepping up to a head of function (pricing / reserving / capital) role at a small-mid sized organisation or being a senior member of a function team at a larger organisation. They should demonstrate not only a grasp of the technical aspects of general insurance actuarial work, but should also possess a good sense for products, the competitive marketplace, regulatory environments and the operational aspects of an insurance company. They should be able to pull these areas of understanding together to provide well rounded advice to the users of their services.

3. Consistent with previous Examiners' Reports, we would offer candidates two key pieces of advice – (i) read the question properly and (ii) take the time to actually think about what is going on. Further to previous reports, we would stress that candidates do not need to get the majority of the points included in this report in order to pass (there are significantly more than 100 marks available for the points in this report). Time spent making sure that you are answering the question that is asked is therefore more valuable than a panicked rush to put down as many points as possible, regardless of whether they are relevant.

4. On the first issue, candidates should always work on the assumption that the question wording has been carefully chosen. It is therefore essential to read the question properly.

5. If something is not asked for then candidates will waste valuable time writing answers that will gain no marks. These broader answers may be a logical next step to the question and so may be appropriate for candidates to discuss in a professional context. This is an exam however with a finite number of marks available and so the scope must necessarily be limited and specifically defined.

6. If a question does specifically mention something, candidates should also assume that there are definitely marks available for this aspect of the question. During the exam setting process, any content that is superfluous will have been removed. A clear implication of that is that if there are numbers provided in the question paper then there are marks available for comment and consideration of those numbers.

7. Wording of question sections should also be considered in the context of the position within the overall question. Where new question information is provided between sections, candidates should recognise that this information is specifically relevant to the following section or sections. When answering preceding question sections, candidates should not consider any subsequent information in their answers (although it may cover similar ground).

8. Various examples from this paper of recurrent failure to read the question are noted below.

9. Candidates should note that SA3 is the key paper at which we test candidates' broader thinking. This is generally the final paper before qualifying as a professional, and we consider a capacity for broader thinking to be one of the best indicators of a candidate's suitability to act in a professional capacity once qualified. As such we aim to design exam papers so that it is difficult to pass without displaying some capacity for independent and broad thinking, as well as to heavily reward instances where these skills are displayed. When reviewing past papers, candidates should assume that the marks available for generic points are substantially less than those awarded for the more challenging points that would be the mark of high quality professional insight in a practising actuary. Marks available for list items from bookwork are lower still.

10. We strongly recommend that candidates step back and take the time to thoroughly think about what is actually going on in question situations proposed rather than simply considering numbers to be analysed with standard techniques. For example, candidates might stop to think about what claims actually are for a particular class of business, considering factors such as what actually causes the claim, who brings the claim, how it is dealt with once brought, what makes one claim small while another is substantial etc.

11. This more grounded, real world perspective will help candidates to consider such things as practical issues, stakeholders involved and their potentially diverging objectives, wider impacts, regulatory or ethical issues, inappropriateness of certain actuarial techniques for the specific situation, current economic or cyclical effects etc. This is likely to lead to significantly broader point generation (and indeed reflects the thought processes of the examiners in drafting the questions and solutions) and a more rounded understanding of the underlying risks and dynamics which should also be of value to candidates when dealing with different stakeholders in their professional life.

12. Again, some examples of this failure to think more widely on the current paper are below. More generally, we would also advise candidates to employ basic exam techniques such as well structured answers and effective time management.

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

1. Performance on capital questions is definitely improving and is now more in line with questions on other topics (or even generally higher scoring this session).

2. Bookwork is substantially better answered than the more challenging questions suggesting candidates are generally well prepared.

3. Many candidates still struggle to tailor their answers to the specifics of the question (potentially not even reading the question thoroughly enough to identify the specifics).

4. Many candidates struggle with idea generation, breadth and depth.

C. Comparative Pass Rates for the past 3 years for this diet of examination

Year	*%*
April 2016	36
September 2015	38
April 2015	33
September 2014	31
April 2014	45
September 2013	42

Reasons for any significant change in Pass Rates in current diet to those in the past:

In line with previous Pass Rates.

D. Pass Mark

The Pass Mark for this exam was 59%.

Solutions

Q1 (i) (a) The risk of default of counterparties such as reinsurers, brokers and derivative counterparties.
The loss could be the full amount owed or partial.

(b) Un-modelled.
It is small and equal between A and B
so could be an add-on of something not modelled stochastically
nor in detail due to lack of data.

It may be an additional item to allow for parameter uncertainty.
The same amount of uncertainty has been added to both subsidiaries so could be for similar parameters.

Other examples could be:

- *expense risk*
- *property risk*
- *lapse risk*
- *PPO risk*
- *latent risk*
- *events not in the data*
- *un-modelled*

Generally well answered.

(ii) Total undiversified/standalone = [1,010/(1 – 40.5%)]

Then deduct (50 + 400 + 150 + … 40) to give 613

Generally well answered.

(iii) Spread risk higher for A, as A may have more fixed interest investments (like bonds) with perhaps A's portfolio having lower credit rating

Spread risk as a proportion of diversified SCR is similar for A and B which may point to differences being more due to scale than portfolio differences

Equity risk is much higher for A which is likely due to A having significantly more equities investments, perhaps due to A having longer term liability profile with liabilities exposed to inflation risk coupled with less exposure to Cat activity

May also be due to differences in relative size of subsidiaries with A being larger or perhaps A having higher levels of available capital

A has high levels of currency risk whereas B has none, perhaps A has a high level of multinational exposure

A's currency exposure is high both in absolute terms and relative to SCR could suggest a deliberate policy of mismatching assets and liabilities, perhaps due to large free reserves permitting a freer investment strategy

B is likely to be a domestic insurer or B could have some currency exposure but perfectly matched

A has very low cat risk compared to B which supports the idea that A writes mainly liability and B property business

B has more counterparty risk so perhaps more reinsurance used
or perhaps this business is sold more via brokers than direct.

Reserve risk is substantially higher for A than B again supporting the notion of a liability/property distinction with liabilities reserves higher for longer and less certain, resulting in higher reserve volatility

Could also suggest A has been writing business longer than B
Reserve risk is main SCR risk driver for A whereas it is relatively minor for B

Underwriting risk is higher for A than B in absolute terms, supporting the relative size idea as A may have more premium income, but also in relative terms as a proportion of SCR suggesting A writes more volatile longer tailed business

B could be new as operational risk is much larger or perhaps the subsidiary operates in a more challenging legal and operational environment e.g. difficult to recruit skilled underwriters, developing country and so less developed insurance market, innovative products with new or non-standard terms and conditions.

B has less diversification benefit than A so perhaps has fewer lines of business than A, or perhaps is monoline

Alternatively could be due to differences in the balance between risk categories

Being part of the same group does not ensure uniformity of approach. Could be differences due to:

- Modelling approaches e.g. internal model versus standard formula
- Model reflective of attitude to risk e.g. optimistic or pessimistic
- Errors e.g. data, parameter or model

Credit given for other sensible observations.

> With only 6 marks available and 10 rows to compare along with marks for some general reasons why numbers may differ, candidates only needed to pick up a small proportion of the available reasonable comments to score full marks. Many did, those who were not sensible enough to work methodically through each pair of numbers and think about what they mean did not. Spread risk was largely ignored.

(iv) The risk margin is intended to ensure that the value of the technical provisions is equivalent to the amount that insurance and reinsurance undertakings would be expected to require in order to take over and meet insurance and reinsurance obligations.

It is intended to cover the cost of capital equal to the SCR necessary to support the insurance and reinsurance obligations over their lifetime in respect of risk which cannot be hedged.

> A surprising (and disappointing) number of candidates still thought the Risk margin was a margin for prudence. Those who knew the bookwork scored well.

(v) *Other alternatives allowable.*

Year	*1*	*2*	*3*	*4*
Reserves (GBPm)	100	49	9	1

SCR run-off	435.0	213.2	39.2	4.4
Multiply by 6%	26.1	12.8	2.3	0.3
Discount using 2%	25.6	12.3	2.2	0.2
Sum cashflows	40.3			

Approach that spreads SCR, applies cost of capital and discounts

Start with SCR adjusted for hedgeable risks (e.g. equity, spread and currency)

Clear SCR run-off pattern or cashflows (SCR provided can be interpreted as amount at time 0 or time 1)

Cost of capital multiplication by 6%.

Discounting by 2%.

Sum cashflows to give single answer

Clear explanation of approach

Assumptions:

- This risk margin simplification is appropriate for risk profile
- Unhedgeable risks are reserve, underwriting, catastrophe, counterparty, operational risk and possibly "other".
- Assumption relating to diversification e.g. ignore or other apply sensible approach
- Reserve run-off pattern is suitable proxy for SCR run-off.
- Especially for Cat run off which is short-tailed
- and new and unearned risk which is mismatched with reserve run off
- Realistic cost of capital for subsidiary B is 6%.
- Discount rate of 2% is appropriate for discounting of risk margin.
- Calculating risk margin at total line of business level is appropriate.

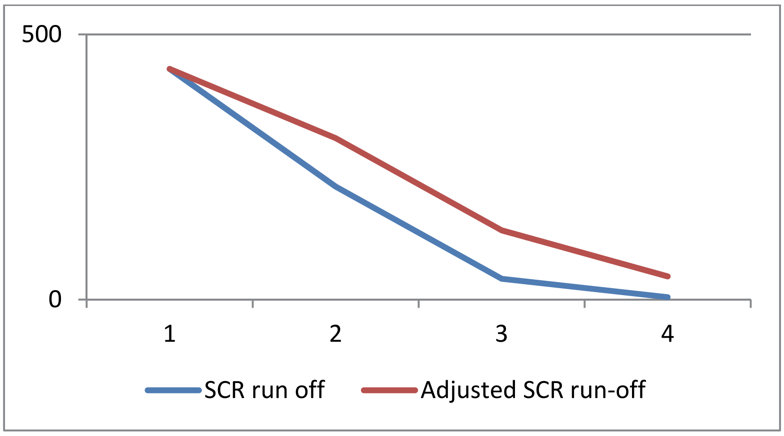
Only a very small proportion considered adjustments for hedgeable risks, but there were sufficient marks available to score well without this. It was recognised that treating each stage as an incremental payment down of reserves was a valid interpretation of the question, and that the SCR could have been at t0 or t1.

Some candidates were completely unprepared however, and missed hugely key steps such as applying cost of capital.

Assumptions offered a number of easy marks and candidates who made sure to document them did well

(vi) The graph should have:

- 2 lines which fall downwards.
- The adjusted SCR run-off uses the square root should be higher than the unadjusted run-off line.



A reasonable number of candidates got this, but there were a variety of responses from those who struggled with the previous parts of this question.

(vii) Sensible comments could include:

- Taking the square root of the reserve run-off will increase the SCR run off.
- Consequently the risk margin increases.
- This may be appropriate as the diversification of the portfolio may decrease as the portfolio shrinks over time
- i.e. less benefit from the law of large numbers.
- This is prudent.
- It is not clear why square root (or power of ½) is used.
- In the spirit of SII, this needs justification.
- The impact will be greater in the earlier run-off years (after time 1).

Candidates who got the previous part generally made some reasonable comments here.

(viii) SCRs are high-level estimates based only on publically data available so may have low level of reliability due to using a model which may not be suitable to the risk profile using data which may not be suitably granular or incomplete, requiring guesses for missing elements.

High risk of error (model and parameter) in both cases.
Standard Formula (SF) based on average across the European sector so may not be suited to medium-sized UK insurer.
Realm may differ from average for various reasons:

- liability portfolio with above average risk
- e.g. contractors / pollution etc. rather than slip & trip
- e.g. high limits
- e.g. excess layers
- significant systemic exposures
- e.g. cyber, professional indemnity
- lack of diversification within a liability portfolio
- e.g. heavy concentration in one or two lines
- low historical reinsurance
- e.g. through insolvent legacy reinsurers
- may have different T&Cs

Potentially may be impacted by a risky asset portfolio, although standard formula is relatively heavy for most asset types.

May be at a different point in the underwriting cycle from when factors were set.

Internal model calculation may be more prone to even more estimation error than standard formula as trying to model complex cashflows with publically available data with more variables and parameters and trying estimate the variability of these cashflows when some of the required information is unlikely to be in the public domain due to commercial sensitivity.

Difficult to see how adequate model validation can be carried out for either model

Difficult to have sufficient information to assess the need for or extant of operational risks

Difficult to estimate the need for or extent of any capital add-ons that may be imposed by regulator

Asset portfolio may include investment with complex cashflows e.g. convertible bonds, mortgage back securities, derivatives.

Difficult to see how this could be modelled using publically available data. Difficult to model any options and guarantees and other contingent cashflows without detailed knowledge of products and triggers.

Internal model SCR is higher than Standard Formula which is unusual as standard formula tends to produce higher number to encourage IM development.

As this is a high-level estimate observed difference could be within range of estimation error

Credit for other sensible suggestions.

Weaker candidates did not spot that the internal model was only estimated using public data, and gave only generic answers here.

(ix) Advantages of using SF solely instead of IM SCR calculation:

- No need for IMAP
- Simpler to implement
- Quicker to adopt SF so less time consuming.
- No need to train or hire actuaries that have SII experience so cheaper
- Smaller figure than internal model capital so would be more capital efficient.
- May suit risk profile if company is similar to average profile
- Generic points about benefits of greater capital efficiency.
- Would not need to meet broader SII criteria
- e.g. use, validation, statistical quality, data etc.

Disadvantages of using SF:

- Decision should not be based on suitability of model and not which number is lowest

- such a decision would be difficult to justify with regulator
- There is a reputational risk associated with such an approach for both the company and CFO
- Not using internal model would be difficult to justify in any case.
- Could be inconsistent with other subsidiaries if they use internal models
- SF may not capture risk accurately especially for liability business
- Internal model is more adaptive to changes in risk profile if the group intends to substantially change the company post acquisition

Generally well answered.

Q2 (i) Medical treatment, may include:

- emergency ambulance
- dental
- hospital costs
- doctors fees

Emergency medical repatriation to home country
repatriation of mortal remains

Cancellation / amendment fees if travel is cancelled,
for example, due to a medical emergency before travelling
or expenses due to missing flight due to failure of public transport

Cover for possessions, may include loss, damage or theft of:

- luggage,
- documents / passport,
- travellers cheques.
- Also delayed luggage
- sports equipment (e.g. skiing, golfing and diving equipment)

Additional expenses following an incident during the travel, for example:

- expenses due to delayed or cancelled flights
- expenses due to failure or airline or travel agent

- taking an early flight home if a family member is unwell

- emergency accommodation following natural disaster at holiday destination

- expenses due to curtailment or cancelation due to acts of terrorism or civil unrest

Other miscellaneous benefits for example:

- dedicated advice line e.g. vaccination advice

- personal liability insurance

- rental car excess insurance

- theft of cash

- accidental death cover

- personal accident cover

- disability insurance

- hospital cash allowance.

In spite of this being pure bookwork (on a product the Examiners suspect most candidates have themselves bought previously), it was surprisingly badly answered by a number of candidates who often focused unduly on some secondary aspects of cover rather than providing a breadth of answers. Interestingly medical treatment was often missed or was low down the lists provided.

A number of candidates also listed causes (e.g. travel delay) rather than benefits (e.g. costs associated with delay) and did not get credit.

(ii) *Example answer below. Marks were available for other reasonable product designs with an appropriate explanation.*

Benefits where cover is likely to be greater than to standard travel insurance:

Medical treatment

Because the policyholder is staying in the country for more than a year, they are likely to need more than the accident/emergency cover on standard travel insurance. It is unlikely they will be fully covered by any public health insurance system.

- Higher limits, particular aggregate limits
- Lower deductibles or excesses
- Preventative health / screening / check-ups
- Elective procedures e.g. dental, optical, physio etc.
- Chronic condition cover
- Regular medications
- Cover for pregnancy and childbirth
- Cover for pre-existing conditions

The policy may also cover:

- Extension of cover to home country during holidays
- Higher limits on baggage cover to additional luggage for longer stay
- Home insurance cover
- Motor insurance on hired/purchased cars
- Cover for family or friends when visiting
- Pets insurance
- Redundancy benefits

Benefits where cover is likely to be similar to standard travel insurance:

- Medical evacuation to home country
- May still need or want to return home in the event of serious injury or illness.
- Cover when travelling to other countries on business

- Standard holiday cover (for holidays during the period)

Benefits where cover is likely to be less than standard travel insurance:

Many of the existing benefits could remain but may want to reduce or remove some to make premium affordable after additions and extensions to other areas of cover

Restrict cover to country of work

Removal of cancellation of trip cover

Removal/Reduction of additional/miscellaneous expenses e.g. missed flights, flight home if family member unwell

Policyholder is living overseas rather than just visiting, so may not want to insure for everyday inconveniences such as losing a bag, or missing a train / plane.

If living in the country for an extended period, removal of benefits typically provided under home contents insurance.

However some low level of cover may still be desirable for customers.

This was poorly answered. Few candidates appeared able to think intelligently about the insurance needs of a particular demographic and type of product.

To generate marks, candidates needed to form a mental picture of the migrant worker lifestyle as opposed to a typical short term holiday traveller (i.e. renting for a longer period rather than living out of suitcases in hotels, not having an imminent return home to follow up on non-urgent medical conditions, there to work rather than just do tourist activities etc.).

Applying that mental picture logically to the benefits typically associated with travel insurance (which the Examiners had helpfully just given candidates 5 marks for reminding themselves about) would have given a structured answer with breadth of coverage and high marks.

Again, a number of candidates gave limited or no consideration to medical treatment.

(iii) Premium should allow for:

- expected claim costs,
- expenses e.g. commission, policy admin, contribution to fixed costs, claims handling,
- investment income,
- corporation tax,
- insurance premium tax,
- reinsurance costs,
- contingency loadings,

- profit margin to provide required return on capital.

May wish to allow for persistency on multi-year policies.

May wish to include a No Claims Discount.

There may also be discounts for affinity groups to reflect lower administration or sales costs.

Claim costs

Flysure's internal historical data is likely to be the best data source for estimating expected claim costs.

Because many of the MWT benefits are similar to standard travel insurance.

Because Flysure is the largest travel insurer, it should have a significant amount of historical claims data.

Although there may be reasons why Flysure's data cannot be used.
e.g. data quality is poor, relatively new insurer

Need to adjust for differences between existing portfolio and assumed policyholder and claims mix under the new policy.

Required adjustments may include:

- Allow for different mix of countries visited

- (for work, compared to existing portfolio which may be weighted towards leisure travel).

- Different age mix (although may be reflect in premiums if risk rated by age).

- Different occupation if such information in recorded for standard travel policy

- Self selective effect of moving abroad to work

- Add in estimated cost of benefits not covered under existing policies,

- Remove expected costs for benefits no longer covered.

- Other examples of appropriate adjustments, e.g. to allow for historical changes in exchange rates, inflation, etc.

Estimated costs for benefits not covered by existing products could be estimated using:

- reinsurer benchmarks.

- health statistics for countries people are expected to visit.

- local medical insurance premiums for countries people are expected to visit.

- While product not offered locally, MWT policies sold in other countries may also provide a benchmark.

- Other examples of approaches/data sources. (half per example)

Flysure may limit costs for routine treatment through product design, e.g. max $500 per year for dental, require a 20% co-payment.

These features would need to be considered in the product costing.

May be able to identify long stay business travellers within existing product, for example, corporate accounts.

Allowance for claims inflation likely to be important given policies can last for up to five years.

The appropriate inflation assumption may be different from standard CPI, given the weighting towards medical costs.

Expenses

Need to consider how the product is to be distributed.

If distributed through intermediaries – attempt to find out what the commission rates are expected.
Estimated associated costs for other channels as appropriate.

For example, to develop website and online sales capability, advertise.
Determine the amount of overhead / fixed costs that will be allocated to this product line.

Need to know sales volumes and typical premium sizes in order to spread fixed costs appropriately
– what will sales forecasts be, what ages, what length of travel, what country.

Immigration statistics will be useful, and may record the number of people leaving the country for extended periods to work, and the destination countries.

Need to allow for estimated claim handling expenses.

Need the ability to manage claims occurring overseas, for example, an expensive course of hospital treatment.

May have additional underwriting costs due to higher benefits and/or cover of pre-existing or chronic

Flysure may already have this capability through its travel insurance, or may outsource claims management.

Need to allow for policy administration expenses e.g. may choose to do some of this locally

Other

Reinsurance availability and cost needs to be considered, high cost due to uncertainties

May be requirement to place some reinsurance locally at higher cost

May require higher contingency loadings as new product and data may be limited for some covers

Investment income unlikely to be key given short tailed nature but may be more important for longer term policies if covered by single premium

In assessing reinsurance needs, need to consider the potential for large medical claims.

Other commercial considerations, e.g. low competition permitting higher margins, loss leader to ensure successful market penetration

This was relatively poorly answered by a number of candidates who did not appear able to produce logical and well structured answers or generate adequate breadth of points. Setting out the component parts of an appropriate premium not only picked up some easy marks but is a good place to start to get thoughts in order and ensure that you do not miss elements to discuss.

There were some weak answers on the core of the question, which was clearly intended to recognise that Flysure has a good baseline from their existing large travel portfolio but will need to adapt this for the nuances of this new product. Poor answers on the previous parts of this question considering the differences contributed to poor answers on this section.

Candidates also were weak on expenses and did not generally go to any level of depth. To generate points, it would have been simple to consider the different types of expenses and factors influencing expense levels, consider whether the product specifics affect any of these elements and then consider information sources that might be available to estimate.

(iv) **Age**

Medical claims likely to be a relatively significant component of the claim cost, and these would be expected to increase with age.

Country of travel

Medical and other costs are much higher in some countries (e.g. USA) than others, and this would need to be reflected in the premium.

Occupation

Direct measure of work-risk, proxy to health awareness and general peril avoidance

Gender

May be allowed in target country and could be important risk driver for medical cover especially if pregnancy benefits are included

Credit for other suggestions with adequate justification

Most candidates got full marks.

(v) Customers with pre-existing or previous medical conditions.

- Where there is an expectation there may be higher future claim costs.
- Potential for adverse selection
- buying policy in order to obtain treatment for pre-existing condition.

Customers over a certain age.

- The potential for very high claims (in excess of any loadings in premiums) may increase with age.

Those that are unemployed, as potential absence of self selective effect

Those in the military, due to risks associated with occupation

Aid workers, due to potential exposure to diseases

Illegal immigrants, as cannot be seen to be encouraging illegal activity

Travel to some countries considered particularly high risk, for example, war zones.

Possibly also applicants currently resident in some less-healthy territories.

Expected claim costs likely to be greater than allowed for in the premium.

Potential for adverse selection.

Potential concentration risk in respect of war zones.

Occupations which are considered very high risk, for example, racing driver.

Expected claim costs likely to be greater than allowed for in the premium.

Potential for adverse selection.

High risk leisure activities while travelling, e.g. sky-diving.

Expected claim costs likely to be greater than allowed for in the premium.

Dishonest customers, e.g. with convictions for fraud.

People may be considered at greater than average risk of submitting dishonest claims in the future.

Other possible reasons with justification

Most candidates got full marks, although some looked at types of claims rather than groups of customers and scored badly.

Thanks to the candidate who suggested that astronauts should be excluded due to prohibitive repatriation costs for a rare moment of humour in the marking process.

(vi) **Legal**

Flysure may not have the appropriate licences to provide the insurance.

May incur fines for providing cover in other countries without appropriate licenses.

Given policyholders are abroad for such a long period, some countries may require people to purchase a policy from a local insurer.

Visa rules may dictate minimum level of cover

Need to be aware of immigration rules
May incur fines for providing insurance in countries subject to trade sanctions.

May need to allow for differences in legal system and practices

Mitigate by:

Investigate licensing requirements.

Investigate insurance requirements in countries workers may visit.

May need to focus on the most material countries in terms of number of policyholders.

Could engage some local legal experts

Could underwrite through Lloyd's to benefit from range of international licences / expertise.

Reinsurance

Existing treaties may not cover this type of risk.

Required reinsurance may not be available.

Potential for large claims may increase.

Need to consider risk of exhaustion

There is also potential for accumulations.

New area of cover uncertainty about appropriate type and amounts of cover required

Mitigate by:

Review reinsurance requirements

Extend reinsurance if appropriate.

Involve reinsurers early in the process

Include profit share arrangement to mitigate excessive premium increases

Reinsurer can help with underwriting health risk.

Claims

Claim costs higher than expected due to:

- Not having been able to estimate claim costs due to lack of data.

- Difference between actual and expected policy mix not allowed for in pricing

- (for example, workers tend to visit high cost regions).
- Risk rating does not reflect differences in expected claim costs.
- Adverse selection due to poor rating structure / underwriting.
- Higher than expected inflation (noting multi-year policy terms).
- Event losses / large losses.
- Random variation, especially initially when the number of policies issued is small.
- Court awards in foreign country
- Accumulations e.g. disease outbreak

Multi-year policies (up to 5 years) mean that, if policies turn out to be under-priced, Flysure could be locked in to many years of losses without the ability to reprice.

Mitigate by:

Look for other sources of data.

Reprice as soon as possible based on emerging experience.

Business should be short tail so any pricing errors should be readily apparent.

Consider writing only annual policies initially, to reduce the impact of any pricing errors.

Consider additional reinsurance, for example, 50% quota share with a foreign insurer with expertise in this product.

Lower attachment points on XL

Allow annual repricing even on longer policies

Clear policy wording
Can increase retention over time as expertise increases.

Can include limits, excesses and co-payments in the product design.

Add suitable exclusions and conditions e.g. medical treatment at home

Currency

Change in exchange rates results in losses.

Currency volatility increases capital cost

Mitigate by:

Consider hedging currency exposures.

Match assets and liabilities

Both may be difficult since don't know where policyholders will live or when and where claims may occur (especially large claims).

Express limits, deductibles or fixed benefits in home currency

Use quota share reinsurance with low retention

Demand

There may be no / limited demand for the product
may be reason for no products like this being on sale at the moment.

This may result in losses if product does not recoup overhead costs / start-up costs.

Pricing may be unaffordable for target market, meaning that only people with high expected claim costs take out the policies (adverse selection).

There may be too much demand - increasing initial costs and straining policy acceptance and underwriting resources

If product is successful, other insurers may start offering the product and force down margins.

Mitigate by:

Research potential market size (number of migrant workers).

Engage market research company to develop understanding of target market

Contact migrant workers to understand insurance needs and budget
Design product to match requirements and suit budget

Investigate restrictive covenants with key partners abroad

Operational

Increased operational risk due to entering new market with new products based on limited data and market intelligence

May lack the expertise to manage new product features

May have to deal with new suppliers and deal with additional languages, cultural or business environment

Reputational damage could result if project is not a success

Increased risk of fraud if lack of local knowledge e.g. overcharging for emergency surgery in an overseas hospital

There may be reliance on outsourced providers, who may not meet expectations or service standards.

Mitigate by:

Flysure has expertise as a travel insurer, so may have developed relevant capabilities.

Could require pre-approval of certain types of claims.

Could partner with local experts in these regions

Could require policyholder to meet costs and then seek reimbursement from insurer.

If business grows, could establish preferred provider networks in popular jurisdictions.

Expenses

Expenses may be higher than expected due to unforeseen expenditure and misestimation

Many need to pay higher than expected commissions to secure the business.

May be additional taxes and hidden taxes

Mitigate by:

Careful and detailed financial planning
Monitor ongoing experience to avoid expense over-runs.

Conduct sufficient research of requirements both in home country and jurisdictions workers will be based.

Credit given to any answers in different categorisation to above

Again candidates did not do particularly well with breadth of ideas and commentary, and a number did not comment on mitigation activity missing a large element of the question.

Few candidates appeared able to think about legal issues outside of claims related policy wording issues.

Candidates (thankfully a minority) who did not use the structure clearly implied in the question generally went off topic.

(vii) Outstanding reported claims

IBNR / IBNER

Claims handling expense

Unearned premium reserve

Including any additional provision for unexpired risks if appropriate

Deferred acquisition costs

Adjustments for any reinsurance

Assets e.g. mark to model, if market value not available

Current liabilities, if any of these need to be estimated

Most candidates got full marks even without full coverage.

(viii) (a) After one month:

It is possible that no policies will have been sold, in which case the outstanding claims provision is nil.

Even if there have been some sales, the amounts are unlikely to be material to the total balance sheet provision (noting Flysure is the largest travel insurer locally).
particularly on an earned basis

There will not be sufficient claims data to determine claim payment / reporting speed assumptions based on MWT product experience (there may be no claims to date).

Claim payment / reporting assumptions could be based on Flysure's travel insurance patterns, possibly with adjustments to allow for differences in the expected mix of claims by type.

Alternatively given the materiality of the business at this stage, it may be appropriate to use a very high level/approximate method to estimate outstanding claims.

For example, reserve based on the loss ratio assumed in the business plan, or assuming a conservative approach (e.g. 100% loss ratio on earned premium).

Should consider any information which might suggest a more detailed approach is appropriate.

For example, if the number of policies sold means the estimate will have a material impact on Flysure's accounts (unlikely).

Consider potential for large claims based on known events.

May initially ignore IBNR as likely to be very small if reporting speeds similar to travel business.

(b) After 13 months:

Expect claims to be reported and settled quickly, given nature of the business.

So it will likely be possible to develop claim payment / reporting patterns specific to this business.

The MWT experience might also be used together with other benchmarks.

For example, use travel business to estimate tail development beyond 12 months.

adjusting for any differences in terms and coverage

The greater the volume of business written/claim paid to date, the more likely it is that good assumptions can be developed from the historical data.

If only a small amount of business has been written, the liabilities are unlikely to be material and so Flysure can potentially use a more high level approach to estimate outstanding claims.

Flysure will be expected to have established a method for estimating outstanding claims,
for example, for monthly reporting, and performance monitoring.

To the extent an established approach appears to be performing reasonably, could continue to use this.

Given the short reporting times, chain ladder methods on either paid or incurred claims likely to produce a reasonable result.

Projecting by accident month (rather than accident year or quarter) may be appropriate, given short reporting period and possible growth in business over time.
and by development month

Using the BF method for recent accident periods may help compensate for volatile payment/incurred experience on a small portfolio.

Need to explicitly consider large claims (for example, major surgery requiring a long hospital stay in the US), both reported and IBNR.

Need to include appropriate allowance for claim management costs.

Allow for reinsurance (for example, excess of loss on any large claims),
consistent with nature of RI arrangements and claims experience.

Allow for seasonality if material.

Allow for any changes in reporting / payment patterns if material
e.g. if there has been a recent change in IT systems which has disrupted payments.

Most got that the initial view had to be pragmatic. There were a variety of views on the 13 month view, and some poorly structured answers.

A number of candidates were clearly having time management issues by this stage.

END OF EXAMINERS' REPORT