

# EXAMINATION

6 October 2010 (pm)

## Subject SA3 — General Insurance Specialist Applications

*Time allowed: Three hours*

### INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You have 15 minutes before the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*
3. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt both questions, beginning your answer to each question on a separate sheet.*
6. *Candidates should show calculations where this is appropriate.*

### AT THE END OF THE EXAMINATION

*Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.*

*In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.*

**1** Safetysure is a medium sized UK commercial general insurance company writing several lines of business, with a focus on longer tailed liability and speciality lines. The company has been in operation for more than 30 years with a management team comprising entirely former underwriting staff. Collective responsibility is taken by this team for all management decisions, on which the executive directors vote before being signed off by the board of non-executives, who are themselves retired executives.

Historically, results have been good and the company has been well capitalised. Management oversight has focused purely on underwriting issues, with no interest in the risk management processes. This area has been a low priority for intensive regulatory oversight, and the company's shareholders have had little incentive to question the management style.

The management team has used external actuarial consultants to meet all reserving, capital and compliance requirements, taking little interest in their feedback. All pricing has been done internally by underwriting teams with no actuarial involvement.

Safetysure has just appointed its first internal actuary who has been asked to review all aspects of the company, starting with the company's management arrangements.

- (i) Outline the key standards for management arrangements, and any potential concerns with the current approach, in respect of both regulatory compliance and good corporate governance requirements. [10]
- (ii) Describe how your answer to part (i) would change with the adoption of Solvency II. [3]

The company has no rate monitoring system in place and has not historically captured any rating data, although most of the underwriters do have pricing models and rating guides that they often use in their work. Safetysure's underwriters have historically used benchmark market rate movements which they believe adequately reflect their book.

The actuary's recommendation that a formal pricing and rate monitoring process be put in place has met with some resistance. The board feels strongly that underwriting should be left to underwriters and actuarial staff should focus on reserving and capital modelling.

- (iii) Outline the key benefits of a formal and well documented pricing and rate monitoring process. [8]
- (iv) Suggest ways in which actuaries can add value to pricing and rate monitoring processes. [7]

The board accepts that there may be some benefits to actuarial review of the pricing and rate monitoring processes and has requested a review of their UK Employers' and Public Liability book which the company first underwrote in 2001.

The reported results for this book have historically been profitable, but the consultants reviewing the reserves have expressed concerns about the emerging experience. As the account is still relatively young they have been using market benchmarks for the development profiles as well as the rate movements. Relative to these benchmarks, older years, which they would have expected to have run off, are continuing to show movements and more recent years have shown an unusual level of claims for the current stage of development.

The claims department has also raised concerns about the volume of small claims coming through for this book, which they are under-resourced to handle, and has suggested imposing higher minimum deductibles.

- (v) Describe, giving your reasoning, the investigations that should be undertaken in order to understand and improve the account. [23]

The liability portfolios include a number of scheme arrangements with third parties, who underwrite risks on Safetysure's behalf. A number of these schemes contain profit commission arrangements, under which the third parties receive additional commission if the scheme meets certain performance criteria. Currently the underwriters make no allowance for these profit commissions in pricing, reserving or planning as the performance criteria are set at a level where they would only become payable if a scheme outperformed its targets.

- (vi) Explain the problems with this approach. [3]

- (vii) Suggest alternative approaches that might allow for profit commissions more appropriately, with reference to the key factors to consider and any data requirements. [19]

[Total 73]

- 2 An article has appeared in an international insurance journal describing Takaful. The article included the following information.

Takaful refers to insurance that is compliant with Islamic law, also known as Shariah law. Takaful products, which are already well established in parts of Asia and the Middle East, are increasingly becoming available in Western countries. A number of major international insurance groups have entered the Islamic insurance market in recent years.

In addition to the normal management structures present in financial services companies, Islamic financial institutions appoint a Shariah board. The Shariah board consists of recognised Islamic scholars. The Shariah board determines whether the company's products and practices are consistent with Islamic teachings.

Islamic law forbids the payment or receipt of interest. Investments related to anything considered unlawful under Shariah law are also prohibited. Contracts involving uncertainty or speculation are forbidden, as is the use of capital simply to obtain a return. However, some Islamic scholars are of the opinion that insurance can be written in ways that adhere to Shariah law. The sharing of risk within a community is considered to be beneficial to society, and so is acceptable to Islam.

Shariah law permits the use of capital for social or ethical purposes, and sharing profits from social or ethical investments is permitted when the risks are also shared. In addition, it is permissible for a company to be rewarded for organising the pooling of risk, or for sharing risks with policyholders.

According to most Shariah scholars, Muslims have a religious obligation to purchase Takaful in preference to conventional insurance.

While many Islamic financial businesses operate on an essentially mutual basis, new ventures are increasing on a for-profit basis. However, policyholders are entitled to share in any surplus, and a share of any profits would typically be given to charity.

Vibe Insurance is a large general insurance company operating only in the country of Texel. Vibe is a mutual insurer, and specialises in personal motor insurance. Around 5% of the population of Texel are Muslims. There are no Takaful products currently available in Texel.

The managing director of Vibe has read the article on Takaful. She has asked Vibe's business development team to consider launching a subsidiary to write Takaful in the country of Texel.

- (i) Define the term "mutual insurer". [1]
- (ii) Describe why Vibe may wish to provide Takaful. [5]

- (iii) Describe the difficulties that Vibe may face in adapting an existing product offering to be Takaful compliant [8]

Vibe's business development team has prepared a business plan for a Takaful business. The business would initially only underwrite personal motor insurance. The table below shows the premium income, claim outgo and expenses that have been assumed for the Takaful business. For comparison, Vibe's current business plan for personal motor is also shown. The current plan excludes the Takaful business.

An actuary has been asked to review the Takaful business plan and prepare a report on the business plan to assist the board of Vibe.

	<i>Takaful Motor</i>			<i>Other Personal Motor</i>		
	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>
<i>Premium</i>	20	100	200	1,200	1,260	1,320
<i>Claims</i>	18	80	140	1,080	1,134	1,188
<i>Expenses</i>	1	5	10	120	126	132

- (iv) Describe the matters that the actuary should draw to the attention of the board in his report. [13]  
[Total 27]

**END OF PAPER**