EXAMINATIONS

14 April 2000 (pm)

Subject 403 — UK Fellowship General Insurance

Paper Two

You must answer this subject only,
you may not attempt another subject in the 400 series.

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *You have 15 minutes at 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.*

2. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*

3. *Write your surname in full, the initials of your other names and your Candidate's Number on the front of the answer booklet.*

4. *Mark allocations are shown in brackets.*

5. *Attempt both questions.*

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet and this question paper.

In addition to this paper you should have available Actuarial Tables and an electronic calculator.

1 You are a consulting actuary. You were recently asked to perform a "review of good practice" on the controls and management information systems of a medium-sized general insurance company writing specialised commercial lines of business through brokers. The company has a reputation for being run very traditionally. In the past it has produced good returns, but more recently it has generally under-performed the industry.

Your initial report showed that the current state of the controls in the company is very poor indeed.

Underwriters attempt to write what business they can at the premium rates they can get in the market place. In-house actuaries independently estimate IBNR, their estimates being reported to the board. The board, composed of senior underwriters and the Finance Director, who is an accountant, believes that the actuaries are always unduly pessimistic and usually book an IBNR 20% to 30% lower than the actuaries recommend.

Interviews with the staff reveal the following.

- The in-house actuaries' main concern is ensuring that their reserve estimates would not be proved to be too low.
- There is an atmosphere of antagonism between the actuaries and the underwriters. The actuaries believe the underwriters are unduly cavalier in the underwriting, and simply follow the market, while the underwriters believe the actuaries are not sufficiently commercial, and do not understand the broker relationship nature of the business.
- The underwriters use a series of ad hoc approaches to writing business. They influence premium rates as much by altering policy wording as by changing the headline price. While they try to keep rates up they believe that in the present climate it is important to maintain the relationship with the broker, otherwise brokers will not return when rates eventually harden.

Based on your initial report the Managing Director has asked for your recommendations for putting into place proper systems and controls.

The company has just been sold by its parent company and the new owners, who are publicly quoted, have installed a new Managing Director. The new Managing Director is a professional manager from industry and knows only basic details about non-life insurance. The Managing Director is looking for radical proposals that will enable her to keep tight control of the company and identify as soon as possible any areas that are under-performing, compared to expectations.

Write a report to the Managing Director explaining how the situation the company is in could be improved by implementing the principles of the actuarial control cycle. [25]

2 You are an actuary employed by a United Kingdom general insurance company, Company A, which writes motor, property and liability classes of business. Company A is considering the purchase of another general insurance company, Company B, the United Kingdom branch of Company C, a large general insurance company based elsewhere in the European Union.

The 1999 gross written premium (GWP) of company B was £200 million, which was approximately half that of company A. The technical reserves of company B at 31 December 1999 consisted of £300 million of claims reserves and £100 million of unearned premium reserves.

As part of the purchase negotiation process, the corporate finance advisers to company C have supplied Company A with details of their goodwill valuation methodology, data sources and results. This included a 10-year discounted cash flow (DCF) model, showing a goodwill valuation of £75 million.

You have been asked by the Finance Director of Company A to determine an appropriate goodwill figure that Company A should pay to acquire Company B, and have used a ten-year DCF model to arrive at a goodwill consideration of £50 million.

(i) Draft a report to the Finance Director of Company A explaining how you determined your goodwill valuation consideration of £50 million and discussing the reasons for the difference between your goodwill figure and that of Company C's advisers.

[including 5 for drafting, 40]

Company C have supplied company A with an actuarial report on the technical reserves of Company B issued by company C's reporting actuaries which contains a best estimate surplus of £20 millions. Company A have also supplied Company C with a copy of an equivalent report that shows no surplus.

Having agreed a goodwill valuation price for Company B with Company A, Company C have proposed reducing the technical reserves by £10 million to conclude the sale and purchase agreement.

(ii) Outline the points that you would include in a report to the Finance Director of Company A:

(a) explaining why Company C's best estimate surplus is £20 million higher than Company A's reporting actuaries,

(b) commenting on Company C's suggestion for reducing the technical reserves, and describing alternative proposals to conclude the sale and purchase agreement that would protect Company A's revised balance sheet following the assimilation of Company B's technical reserves and share in any surplus in those technical reserves. [35]

[Total 75]