

# EXAMINATION

6 September 2005 (am)

## Subject SA5 — Finance 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 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.*
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.*

**1** A large and well known multinational company has recently completed construction of a shopping centre on the outskirts of Tokyo, Japan. In order to protect itself from loss arising from a natural catastrophic event, the company has decided to issue a catastrophe bond.

The bond will pay regular coupons, have a 5 year term to maturity and have a nominal value of USD100 million. The default event definition for the bond will be based solely on a natural catastrophic event occurring in the Tokyo area. The bond structure will require the creation of a special purpose vehicle.

The company will purchase property insurance to protect itself from loss arising from fire, explosion and other causes which are not the result of a catastrophic event.

(i) Suggest a possible definition of the default event. [3]

(ii) Describe the type of, and role of, the special purpose vehicle in the bond structure. [3]

(iii) Describe the catastrophe bond structure in detail. Your answer should include the identification of, and role of, the parties to the transaction, the contractual arrangements between the parties and, using a labelled diagram, the transaction cash flows. [14]

(iv) A credit rating agency has provided the company with an indicative rating for the bond of BBB. State with reasons the features of the bond which the rating agency is likely to have considered prior to making this indicative rating. [6]

(v) The company has engaged you to produce a risk control report addressing natural catastrophic event risk for the shopping centre. Your report should address the following topics.

- A statement of the sources of risk and the potential consequential economic loss.
- Actions or procedures which could be put in place to reduce the potential economic loss and personal injury should an event occur.
- A comparison of the costs and benefits of the proposed catastrophe bond with conventional insurance.

Draft the report making appropriate assumptions regarding the characteristics of the centre. [12 plus 2 marks for drafting]

(vi) Outline the taxation implications of the bond to the company over the life of the bond. Your answer should consider both circumstances in which the bond has not defaulted and circumstances in which it has defaulted. You should assume that the company is UK tax resident. [3]

(vii) You have been advised that insurance companies are the most likely bond investors. Compare the bond investment from an insurance company's perspective with the alternative of the insurance company selling conventional insurance to the company. [8]

- (viii) Outline the concerns that the FSA might have if a UK insurer held a significant amount of catastrophe bond investments. [2]  
[Total 53]

**2** A cooperative society is a profit sharing organisation owned by its members. You should assume that it is an unlisted limited liability company. You should also assume that members can purchase a share directly from the cooperative for a nominal amount.

A UK cooperative society has two main trading operations, a savings and loans operation and a chain of supermarkets.

In recent years several mutual building societies have demutualised and distributed valuable shares to their members. In the light of this experience a corporate raider believes it should be possible to offer to buy the society from its shareholders at a very attractive price. The corporate raider has appointed a UK investment bank to be its corporate finance adviser and to help the raider to raise the moneys necessary to make the bid.

- (i) Deduce the corporate raider's probable reasons for believing that the bid will be successful and describe his likely plans for the cooperative once he has gained control. [4]
- (ii) Describe the acquisition process. Your answer should identify all of the parties involved in the transaction and the main steps undertaken by each of the parties. Your answer should also include a process timetable. [13]
- (iii) You have been appointed by the investment bank to estimate the enterprise value of the cooperative from both the corporate raider's and the current shareholders' perspective. Describe the approach that you would use, the information that you would wish to receive and the problems that you would expect to encounter. [16]
- (iv) The investment bank has had no prior dealings with the raider. The bank is not aware of his background and that he has had past associations with members of the board of the cooperative. The raider provided the bank with documents. The bank used these documents and distributed a number of these documents to potential funders of the takeover. It has now come to light that the raider obtained the documents illegally from the cooperative and that, having discovered this, the cooperative has reported the matter to the FSA who has now become aware of all of the facts in this case.
- (a) State the rules which the bank and/or its personnel may have broken and the actions that the FSA could take against the relevant parties.
- (b) Explain the actions that the FSA is likely to take against the relevant parties and the likely consequences of those actions. [10]
- (v) The bid has failed. Propose initiatives that the cooperative's management could introduce to increase the value of the cooperative in the minds of the shareholders and/or to discourage future takeover attempts. [4]

[Total 47]

**END OF PAPER**