

# EXAMINATION

4 April 2005 (am)

## Subject CA1 — Core Applications Concepts

### Paper 1 (Assets)

*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 all 8 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 prospective home buyer has been offered the following two options to finance the capital sum for the purchase of a property:
- an “interest-only” loan and an endowment assurance
  - a repayment mortgage
- (i) Describe the cashflows under the two options. [6]
- (ii) (a) State the main disadvantage of the repayment mortgage option.
- (b) Suggest a way to address this disadvantage, describing its effect on the cashflows. [3]
- [Total 9]
- 2** A scheme which provides benefits on retirement has 25% of its assets invested in overseas investments. A scheme member has asked why the fund has overseas investments when all the benefits are payable in the domestic currency.
- (i) Discuss possible reasons for this strategy. [4]
- (ii) List the problems which may be encountered when investing in overseas securities. [5]
- [Total 9]
- 3** Outline the points a charity should take into account when reviewing its investment strategy. [10]
- 4** The financial regulations for insurance companies are being changed and as a result a company needs to introduce a stochastic asset model.
- Describe the evaluation criteria for selecting a stochastic asset model. [11]
- 5** (i) Discuss the features of corporate debt that would make it a suitable investment for a scheme providing benefits on retirement. [5]
- (ii) List the factors that influence the difference in yield between government and corporate bonds. [3]
- (iii) Describe the possible features of a new corporate bond issue that would reduce the risks associated with it, and thus might make the bond more attractive to an investor. [4]
- [Total 12]

- 6** (i) Describe the two main types of dealing system in use in stock exchanges. [4]
- (ii) An investor wishes to trade a large amount of stock. Discuss the advantages and disadvantages of the two main types of dealing system that could be used for this. [9]
- [Total 13]

- 7** (i) List the uses of investment indices. [4]
- (ii) Describe the particular uses of government bond indices. [4]

An investment manager is considering setting up a new index-tracker fund to track UK equities.

- (iii) Compare the main features of the FTSE 100 Share Index and the FTSE All-Share Index. [4]
- (iv) Explain the factors to consider when deciding which of these indices to track. [4]
- [Total 16]

- 8** An investment company is considering selling a financial product in a developed overseas market. This will be its first international venture. The company has estimated the potential cashflows in today's monetary values under a number of different scenarios as follows.

Scenario	A	B	C
Year	\$000	\$000	\$000
1	−565	−565	−565
2	180	160	100
3	210	176	100
4	240	194	80
5	240	213	70
Probability of occurrence	30%	60%	10%

- (i) Explain how the real risk discount rate to be used when valuing this project should be chosen. [8]
- (ii) Calculate the net present value under each scenario and the expected net present value of the project. Use a real risk discount rate of 9% p.a. and assume that the cashflows occur midway through each year. State the formulae used. [6]
- (iii) Discuss the considerations which should be taken into account when deciding whether the project should proceed. [6]
- [Total 20]

**END OF PAPER**