

## EXAMINATIONS

11 September 2000 (am)

### Subject 301 — Investment and Asset Management

*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 all 11 questions, beginning your answer to each question on a separate sheet.*

#### **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** (i) Explain four methods of valuing a corporate bond that is convertible into ordinary shares of the company after some future date. [7]
- (ii) Discuss briefly how all four methods might be used to assess the issue price of a new convertible loan stock. [3]
- [Total 10]
- 2** Discuss the limitations and disadvantages of assessing managers on their investment portfolio performance. [8]
- 3** (i) State the key characteristics of money market instruments. [1]
- (ii) Outline the reasons why a pension fund might find investment in money market instruments attractive. [4]
- (iii) Explain why pension funds would not normally invest a large proportion of their assets in money market instruments. [3]
- [Total 8]
- 4** In a small European country, the performance and the asset allocation split by country of all the major funds are published on a quarterly basis about 6 weeks after the quarter end. One of the fund managers manages a relatively small portfolio of international equities. His portfolio mandate excludes domestic equities whereas his benchmark is the median return of managers running funds which do not have this constraint. In terms of style, the manager's competitors are very active.
- (i) Discuss the difficulties facing the fund manager in seeking to manage the portfolio of international equities within the terms of his mandate and the benchmark set. [7]
- (ii) Suggest ways for overcoming these difficulties. [3]
- [Total 10]
- 5** Discuss the characteristics and uses of two equity indices used in the United States and two equity indices used in Japan. [8]
- 6** Discuss reasons for using a notional portfolio approach in valuing the assets of a pension fund in an actuarial valuation. [7]

- 7** A global asset management company has to date provided only active asset management. The directors of the company are concerned that it is losing market share to passive asset managers. It is considering the launch of an international equity index tracker fund. The fund will aim to track the FT/S&P World index with a tracking error of 0.5%. The company will need to invest £25million in the fund in order to begin tracking the index from the launch date. The fund will have a management charge of 0.2% p.a.

You have been retained by the board of the company to carry out a preliminary investigation of the viability of the project.

- (i) List the information you would need from the directors concerning project evaluation before drafting your report. [3]
- (ii) Explain the issues which your report to the directors might cover. [8]
- [Total 11]

- 8** A fund manager has just taken responsibility for a domestic equity portfolio that has been managed on an index tracking basis using full replication. The portfolio comprises 3% of the quoted capitalisation of the home country. He wishes to manage the fund on an active basis, reducing the number of securities in the portfolio from 500 to approximately 100 stocks, but will maintain index weight in each major industrial sector in the index.

Discuss the issues involved in implementing this proposal. [7]

- 9** (i) Explain why investors demand a higher yield on factories compared with that on offices and shops. [4]
- (ii) Discuss the factors that the property manager of a pension fund might consider when assessing the suitability of a factory for inclusion in the portfolio. [3]
- [Total 7]

- 10** The government of a country has decided to introduce regulation of its financial services industry, although it has not yet decided whether the system will be statutory or self-regulated. It will appoint an executive responsible for implementing the system and acting as Regulator in its initial phase. The three candidates for the appointment are:

- a lawyer experienced in drafting legislation
- a market practitioner operating in another developed market
- an actuary who operates as an investment consultant

Discuss the skills which each of the candidates would be likely to bring to this role, explaining how these might differ depending on whether a statutory or self-regulated system is introduced. [12]

- 11** (i) Explain the difference between credit risk and market risk in the context of a fixed-for-floating interest rate swap and describe the conditions necessary for a credit loss to occur. [3]
- (ii) Explain why an investment bank which has arranged two offsetting single currency interest rate swap contracts still faces credit risk. [3]
- (iii) UKL, a British software firm, wishes to borrow US dollars at a fixed rate of interest. USCorp, a US arms manufacturer, wishes to borrow sterling at a fixed rate of interest. The companies have been quoted the following fixed rates of interest by INVInc, a global investment bank:

<i>Company</i>	<i>US dollar rates</i>	<i>Sterling rates</i>
UKL	6.0% p.a.	10.0% p.a.
USCorp	5.2% p.a.	9.6% p.a.

Design a swap that will give an apparent gain of 0.16% per annum to UKL and USCorp without exposing them to foreign exchange risk within the swap and discuss the risks faced by INVInc in the solution you propose. [6]

[Total 12]