

EXAMINATIONS

April 1999

Subject 401 — UK Fellowship Investment

Paper One

**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 all 9 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** You are the Chief Investment Officer for a UK pension fund of a major company with assets in excess of £4bn. The assets are managed across multiple asset classes using a number of investment managers. Following the disposal by the company of one of its subsidiaries, the pension fund is required to pay a bulk transfer of approximately £200m to another pension fund in six weeks time. The amount to be paid is linked to the total return statistic for the FTSE All Share Index. Under the terms of the sale agreement, the pension fund is obliged to settle the payment by transferring stock representing a reasonable cross section of the fund, but both parties may by agreement vary the distribution.
- (i) Explain the investment risk for the pension fund which is introduced by the liability for this payment, illustrating your answer with a simple example. [4]
 - (ii) Explain how derivatives may be used to mitigate this risk and list the problems which may arise. [4]
 - (iii) Discuss the adjustments you would propose to a pro rata distribution for the benefit of the fund. [8]
- [Total 16]

- 2** A growing company has for many years run a defined benefit pension scheme for its employees. The company has now decided to close its existing defined benefit scheme to new entrants, and to establish a new defined contribution scheme, which all new employees would be offered the chance to join.

Explain

- (a) the different investment considerations which apply to the two types of pension scheme, and
- (b) the long-term implications which the decision may have for the investment strategy of the continuing defined benefit scheme. [8]

- 3** You are the Chief Investment Officer of a fund management organisation.

After a number of high profile financial failures and crises in financial institutions, the board of the organisation has asked you to review investment risk controls within your operation.

- (i) Define four types of risk which will need to be considered. [2]
 - (ii) Discuss the key points which you will need to examine in order to satisfy the board of directors. [6]
- [Total 8]

4 After several years of poor investment performance the senior management of a small life insurance company is concerned about the ability of its in-house investment team to deliver the consistently good results which are required to remain competitive. The poor domestic equity performance has been attributed to the team's tendency to favour small stocks which have value characteristics. The poor overseas performance has been blamed on a lack of resources.

- (a) State the broad options available to the company in respect of its investment operations.
- (b) Explain in detail the considerations involved in these options, and the investigations which need to be conducted in order to decide which option to pursue. [8]

5 (i) List the uses of investment indices. [4]

- (ii) In the recent past the Dow Jones Index has outperformed both the S&P 500 Index and the Russell 2000 Index.

Describe the main features of these three indices and give possible reasons for the divergent performance. [4]

- (iii) A new UK index is being proposed which will be an arithmetically weighted index. The weights used in the index will be industry based using contributions of the industry to GDP e.g. if the life assurance industry represented 5% of GDP then the life assurance sector would have a 5% weight in the index.

Comment on the proposed new index, and compare it with other commonly used UK indices. [2]

- (iv) An investment bank is considering the introduction of an index of commodity future prices, to use as a barometer of global industrial supply and demand.

List three broad classes of commodities you would expect to be included in the index and comment on the factors you would consider when building the index. [4]

[Total 14]

- 6** (i) A company has a current market capitalisation of £500m and has pursued a dividend policy which ensures that its cover remains a constant two times. The latest dividend was 25p per share and the share price last traded at £10. The latest annual report states that the average cost of capital for the company is 7% and that its net assets per share stand at £4.

Calculate

- (a) the company's historic PER
 - (b) the EVA of the company
 - (c) the value the market is currently placing on this EVA [6]
- (ii) Explain how the price earnings ratio of Chemical companies might be expected to compare with the ratio of companies in the Pharmaceutical sector over the course of a typical trade cycle. [6]

[Total 12]

- 7** You are the consultant to the trustees of a new and growing defined benefits pension scheme. The chairman of the trustees has just liquidated his own small personal portfolio. In view of continued volatility in world markets, he has recommended to his fellow trustees that the company scheme switches all its funds into bonds and cash. The trustees have asked you to comment on his recommendation.

Discuss the main items which you would include in your response. [14]

- 8** As investment management companies develop global operations and competition between them becomes more intense, a need has developed for global performance standards to enable a more reliable comparison of managers' performance. The developing standards include the following four elements:

- Portfolio valuations at least monthly
- Use of time-weighted returns for performance calculation
- Accrual accounting for dividends (based on ex dividend dates)
- Composite data should be provided which is the average of all funds managed by the investment management company to the same benchmark

Explain the relevance of each of these standards in ensuring that the comparison provides a more accurate reflection of managers' underlying performance.

[12]

- 9 You are the investment manager of a global bond portfolio denominated in US\$. You have the following information available at the time you are considering a number of investments:

<i>Asset</i>	<i>Coupon</i>	<i>Denomination</i>	<i>Gross Redemption Yield</i>
US Treasury Bond 2009	5.625%	US\$	5.1%
Japanese Bond 2009	1.8%	Yen	0.83%
Argentinian Govt. Eurobond 2009	8.125%	Euro	9.45%

Explain the investment considerations you would apply when considering whether to make new investments when these rates apply in

- (a) the Japanese Bond, and
- (b) the Argentinian Government Eurobond.

[8]