EXAMINATIONS

September 1998

Subject E — Investment and Asset Management

Paper One

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 15 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 List the major classes of sterling denominated UK non government fixed interest securities and discuss briefly, for each class, the factors affecting their yield margin over gilt edged securities. [5]

2 Explain the difference between immunisation and matching in the context of an institution with long term assets and liabilities, commenting on the limitations of each method. [5]

3 Outline two methods by which an investor might determine the valuation of a convertible loan stock, listing the main assumptions involved.

Explain why the market price might differ from calculated theoretical values. [4]

4 List the advantages and disadvantages to an institutional investor of holding:

(i) a convertible loan stock
(ii) a warrant [5]

5 (i) A company's stock is currently priced at £10. The company decide to have a scrip issue 3 for 1, followed by a 1 for 3 rights issue at 50p. Calculate the theoretical post scrip/post rights stock price.

(ii) Explain the choices which are available to shareholders in respect of the rights issue. [4]

6 (i) Describe the key features of the Consumer Sector of the FTSE Actuaries Industry Sectors classification of the UK Equity Market.

(ii) Explain how these features contrast with those of the General Industrials group. [6]

7 (i) List the key factors which influence the level of the UK equity market.

(ii) Discuss with reference to above how you would judge the relative attractiveness of UK equities and UK gilt edged securities at any given point in time. [10]

8 An institutional investor is considering the acquisition of an entire shopping centre that is only partially let. Describe the investment and risk characteristics of this property which should be taken into account in determining a fair market price. [8]

9 (i) State the main uses an institutional fund manager might make of financial futures.

(ii) You are the manager of a £500 million pension fund. The fund assets consist of a portfolio of equities and bonds, with both asset classes well diversified. The current split of the portfolio is 80% in UK equities and 20% in UK gilts. On the advice of the actuary, following an asset liability study, the trustees instruct you to move immediately to a 50:50 UK Equity: Gilt asset split.

(a) Explain how you could accomplish this portfolio shift using financial futures, highlighting any investigations that you would need to carry out.

(b) Explain how you would calculate the number of contracts of each instrument that would need to be bought or sold. [9]

10 (i) Explain how the delta of an option is used when implementing portfolio insurance or hedging for a fund.

(ii) You have invested £6 million in a stock and are concerned about its short term prospects. The current share price of the stock is 500p.

The following price information is available to you:

Exercise Price (p)	***Call Option***		***Put Option***	
	Price (p)	*Delta*	*Price (p)*	*Delta*
520	15	0.3	30	0.6

(a) Calculate how many option contracts need to be bought in order to eliminate half of your exposure to the stock.

(b) Calculate how much will this cost.

(c) Assuming the share price stays unchanged, explain how the prices of the put and call options would be affected by the announcement of a special dividend. [8]

11 A developing Eastern European country has only recently established a stock exchange. Currently there are only 5 stocks listed and none of them pay dividends. No new listings are expected in the near future. The directors of the exchange wish to establish an index that will measure the stock price performance of the 5 listed companies.

(i) State, with full description, the formula that you would use to calculate an index value.

(ii) The index is set to base value 1000 and you have the following information.

Company	*Start Market Capitalisation*	*Base Price*	*Closing Price Day 1*	*Closing Price Day 2*
A	30,000	30	33	33
B	30,000	30	36	42
C	40,000	20	30	40
D	20,000	40	40	40
E	20,000	20	22	24

After the close of business on Day 1 and prior to the opening of the market on Day 2 , Company B announces that it has issued a tranche of shares to an investor at the prevailing market price, thereby increasing its overall market capitalisation by 50%.

Calculate the price of the index at the end of Day 1 and at the end of Day 2.

(iii) Companies B and C have only recently been privatised and the state government has retained a 50% stake in each of the companies. Explain any influence this would have on the construction of the index.

[11]

12 There are 10 principles set out by SIB governing the conduct of investment business. Two of these principles are “Information about Customers” and “Information for Customers”.

Explain the purposes of these two principles. [4]

13 (i) Assuming a risk free real yield of 3.5%, expected inflation of 3%, the likely growth rate in dividends of 5% and growth in rents of 4% estimate the following:

(a) the inflation risk premium,
(b) the corporate bond risk premium,
(c) the equity risk premium, and
(d) the property risk premium.

Comment on the relative levels of the risk premiums and suggest reasons why this is so.

(ii) Use the above estimates to analyse the current gilt/equity reverse yield gap into its four components. [6]

14 You are the investment adviser to an oil company which has decided to raise long term capital. The chairman is proposing to issue a 30 year corporate bond which will have both its coupon payments and its redemption proceeds linked to the spot price of oil.

(i) Comment briefly on the considerations involved.

(ii) Explain how the market might value this instrument and discuss the initial coupon which might be appropriate. [8]

15 A financial journalist suggests that, since markets are efficient, the optimal investment strategy for pension funds is to make use of index tracking passive investment funds.

Discuss this suggestion, specifically in relation to the uses of technical and fundamental analysis. [7]