EXAMINATIONS

20 September 2004 (pm)

Subject 401 — UK Fellowship Investment

Paper Two

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. *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.*

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 Actuarial Tables and your own electronic calculator.

1 You are the newly appointed advisor to a large UK final salary pension fund which has a broad mix of active members, deferred members and pensioners. Currently the fund operates with two balanced managers, one active and one passive. The performance of the managers is assessed relative to each other and relative to the median of a standard peer group survey provided by an independent performance measurement company.

The chairman of the trustees contacts you and informs you that the trustees wish to review the overall investment strategy of the fund. In particular one of the trustees has proposed that the scheme abandons this peer group balanced approach and moves to a liability driven approach where the investment strategy is set by close reference to the scheme liabilities. He has suggested that the fund's objective be changed to achieve returns over rolling 3-year periods equal to increases in the Retail Prices Index plus 3% per annum. The chairman is receptive to this idea but is also aware that the finance director of the sponsor company favours moving the entire fund into corporate bonds.

The chairman asks you to prepare a report covering the following:

- a recap on the historical background behind the current peer group approach and the reasons why it may be considered less appropriate today

- an overview of what is meant by liability driven investing

- a discussion as to how a new benchmark and investment strategy might be set including comments on the trustee's suggested benchmark and the finance director's suggested approach

- as any major review of this nature might result in fairly substantial alterations to the scheme's asset and manager structure, the chairman also requests that your report includes the major high level investment considerations in effecting such a strategy

(i) Detail the information that you would require in order to prepare your response. [10]

(ii) Set out the points you would make in your response. [30]
[Total 40]

2 You are the investment advisor to a large UK charity fund which has a wide variety of bond and equity specialist mandates. In particular there are two UK equity managers each operating a portfolio aiming to outperform the total return on the FTSE Actuaries All Share index over rolling three-year periods.

The following data on their performance over the past year is presented to you.

	Amounts in £m				
	31/12/02	*31/03/03*	*30/06/03*	*30/09/03*	*31/12/03*
Manager X	250	282.5	275	307.5	327.5
Manager Y	250	280	250	325	330
Total return index (rebased) FTAllshare	100	110	105	115	120

Manager X received a steady cash flow stream at the rate of £5m per quarter. Manager Y received £40m on 1 July and was asked to pay out £10m on 1 April and 1 October.

In order to satisfy the requirements of the Myners' report you have been asked to undertake some trustee training on the subject of performance measurement and manager evaluation.

(i) You have been asked to provide a report. Set out the points you would make covering:

(a) a basic overview of the purpose of performance measurement
(b) a description of the methods involved; and
(c) various risk-adjusted calculations that might be made

[13]

You are asked to assess and compare the performance of each of the two managers and explain why Manager X has appeared to underperform Manager Y.

(ii) Using the information given calculate the basic (non risk-adjusted) performance of each manager over the course of the year. State clearly any assumptions made. Comment on the results.

[12]

(iii) Detail the additional information which you would require in order to carry out a full analysis of the two managers explaining why each item is needed.

[3]

The chairman has also asked you to provide some detail on the typical structure of a UK institutional investment manager and in the course of the report explain how the two managers should be assessed if there were to be a more in-depth review of their continued suitability.

(iv) List the items you would cover. [10]

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To date the fund has held 50% of its assets in UK equities, and 20% in US equities. The asset allocation advisors to the fund have just advised that the US equity allocation should now be reduced to 10% and the proceeds invested in a mixture of US investment and sub-investment grade bonds for a period of 9 to 15 months, to take effect within 3 weeks.

(v) Describe the practical problems of carrying out this switch without using derivatives and explain how this switching process can be made easier by the use of derivatives. [5]

(vi) Describe the cash flow problems that you might face in using a derivative based strategy for the transition. [5]

You decide to gain exposure to US treasury bonds by selling US S&P 500 futures and buying 10-year treasury note futures while the required bonds are being purchased and US equities sold. You know that you have sufficient cash to cover the margin positions. The intention is for these futures positions to be unwound as underlying asset sales and purchases are completed, prior to the December delivery dates of the futures.

The face value of the treasury note future is $100,000 at maturity and you have been quoted a price of $110,000 for the December contract. The unit of trading for the equity future is $50 per index point and you have been quoted a price of $50,000, also for the December contract.

(vii) Calculate the number of equity contracts you would need to sell and the number of treasury note contracts you would need to buy to redirect the fund's exposure from US equities towards US bonds. Assume an exchange rate of $1.80 per £1. [4]

(viii) Explain why the equity and bond hedges might be imperfect. [5]

Half way through the process of unwinding the futures positions, your chief economist advises you of his concern that the level of the dollar is expected to fall against sterling due to increases in US Consumer Price Inflation and advises you to actively hedge currency exposure for all US holdings for the next 6 months.

(ix) Describe how you might achieve this. [3]

[Total 60]

END OF PAPER