



DIPLOMA SUMMER 2009 EXAMINATION

FUND MANAGEMENT

DATE OF EXAM	Friday 26 June 2009
3 HOURS	2.00 pm – 5.00 pm
RUBRIC	SECTION A - <i>ALL</i> questions in this section are to be answered SECTION B – <i>ALL</i> parts of the question in this section are to be answered SECTION C – <i>THREE</i> questions in this section is to be answered

Candidates are reminded that no marks will be awarded for illegible work

NOTES TO CANDIDATES

1. Please insert your Candidate Number on the Answer Book cover. *Do not insert your name.*
2. Show *all* workings in your Answer Book.
3. Candidates may attempt the sections in any order. Please indicate clearly in your Answer Book which questions you are answering.
4. Please insert in the box provided on the cover of your Answer Book the numbers of the questions you have attempted in the order in which they appear in the Answer Book.
5. You may use the calculator provided or one approved by the Securities & Investment Institute.
6. You must hand your Answer Book to an invigilator before you leave the Examination Hall. *Failure to do so will result in disqualification.*
7. Once submitted, the examination scripts become the property of the Securities & Investment Institute and will not be returned to candidates.

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PLEASE TURN OVER WHEN INSTRUCTED

Answer ALL questions in this section

- 1 Who are the three types of users of futures contracts and what are the differences in their motivation for using futures? *(3 marks)*
- 2 What is the difference between creation price, liquidation price and bid price associated with unit trusts? *(3 marks)*
- 3 What is the short-selling technique? Why did the FSA introduce a short-selling ban in September 2008? What were the views of the market participants on the effectiveness of this ban? *(3 marks)*
- 4 Why would a fund manager in an index tracking fund choose a sampling method rather than a full replication method for portfolio construction? *(3 marks)*
- 5 A portfolio has total risk of 11% and a systematic risk of 8%. Assess the level of diversification of the portfolio, proportion of unsystematic risk in this portfolio and its correlation with the market. *(3 marks)*
- 6 You are given the following information for Portfolio ABC:

Portfolio	Mean Return	Beta	Semi-Deviation	Unsystematic Risk
Portfolio ABC	0.9	0.9	0.08	0.02

The standard deviation of the FTSE All share index used as a market portfolio is 10% and the risk free rate is 3%. Calculate the Sharpe ratio, Treynor ratio and Sortino ratio for Portfolio ABC. *(4 marks)*

- 7 In the CAPM model, the higher the beta the higher the expected return of an asset. Does this statement always hold true? Explain. *(3 marks)*
- 8 You are given the following information about two stocks:

	Stock A	Stock B
Standard Deviation	14%	15%

The correlation coefficient between the two stocks is -1. Construct the risk free portfolio and explain the shape of efficient frontier in this two-asset portfolio case.

(3 marks)

- 9 Find the duration of each of the following bonds:

	Bond A	Bond B	Bond C
Time to Maturity	2 years	2 years	Undated
Coupon	0%	6%	5%
Yield	5%	5%	5%
Price	£90.7	£101.86	100

Coupons are paid annually. Explain your findings.

(3 marks)

- 10 Give reasons why an investor would invest in gold and briefly explain indirect methods of investment in gold.

(3 marks)

SECTION B

TOTAL 30 MARKS

Answer ALL parts of this question

- 11 Assume that you are part of a portfolio construction and evaluation team in a large pension fund. Your boss has asked you to write a report on the following:

- What are Index Linked Gilts and how could they be used in a pension fund portfolio? (8 marks)
- Explain the difference between the minimum variance frontier and efficient frontier of risky assets only. Can property be a part of an efficient frontier? (7 marks)
- An equity index tracking strategy is considered for part of this pension fund. What type of index would you use as a benchmark for tracking: market value weighted, price weighted or fundamental weighted index? Explain. (6 marks)
- Your analysis shows that many of the stocks in the current pension fund portfolio are 'growth at reasonable price' stocks. What are they and why would a portfolio manager choose them? (4 marks)
- Over the years, pension fund managers were said to be suffering from familiarity bias, however recently trustees have implied that some of the managers in your fund are suffering from 'herding'. Explain both of these biases. (5 marks)

Answer ANY THREE questions

Each question carries 13 marks

- 12 Explain the differences in convexity of option free, callable and puttable bonds and their relevance.
- 13 Differentiate between systematic and unsystematic risk and explain how each of these can be reduced by:
- i) randomly including large number of assets in a portfolio
 - ii) including assets with low or negative correlations in the portfolio
 - iii) using stock index futures.

Use equations and graphs to support your answers as appropriate.

- 14 How are managers expected to generate alpha in merger arbitrage strategy and how in market-neutral arbitrage? Why would some investors prefer to invest in a fund of funds?
- 15 Explain Return on Investment, Shillers PE and Tobin's Q ratio as methods for appraising equities, clearly outlining their uses, advantages and problems.
- 16 If markets are efficient in the semi-strong form sense, then both fundamental and technical analysis are useless. Discuss.