INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

1 October 2019 (pm)

Subject SA7 – Investment and Finance
Specialist Advanced

Time allowed: Three hours and fifteen minutes

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
3. *Mark allocations are shown in brackets.*
4. *Attempt all questions, begin your answer to each question on a new page.*
5. *Candidates should show calculations where this is appropriate.*

Graph paper is NOT required for this paper.

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 the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.

1 (i) State the different types of advice given by investment advisors, giving examples of each. [5]

(ii) Contrast the skills required of a trader or investment manager with those required of an investment advisor. [7]

[Total 12]

2 (i) Describe how a risk model can be used to determine the level of overall risk within a portfolio. [3]

(ii) Describe how risk budgeting makes use of a risk model for portfolio construction. [4]

Risk Parity investment strategies have become popular in recent years. Risk Parity is an application of risk budgeting where a portfolio is constructed such that equal contributions to overall risk are targeted across each of the components of the portfolio, using leverage if required.

(iii) Explain the potential disadvantages to an investor of applying a Risk Parity investment strategy. [5]

A developed country has applied a substantial and comprehensive policy of Quantitative Easing (QE) over a period of several years.

(iv) Sketch a diagram showing what a QE policy is and the impact it is likely to have on asset markets. [9]

(v) Assess how the QE monetary policy might reduce or increase the impact of the disadvantages of a Risk Parity investment strategy. [2]

A fund constructed using Risk Parity techniques makes significant use of leverage and its portfolio is constructed based on historic risk and correlations.

(vi) (a) Explain how such a portfolio can be vulnerable to changing economic conditions.

(b) Suggest enhancements to the fund's investment strategy that would improve its resilience to changing market conditions.

[7]

[Total 30]

3 A retired football player has decided to establish a wealth management company, WealthCo. The target market is young people who have been in employment for less than 15 years. Investors' funds will be sourced through an online platform.

(i) List eight items of information in respect of individual investors which should be collected through the online platform. [4]

(ii) List four items of information which WealthCo should provide investors with before investments are made. [2]

(iii) (a) Describe, with examples, the elements which contribute to an investor's net worth.

(b) Discuss, with reference to WealthCo's target market, the relationship between net worth and risk tolerance.

[12]

In order to determine an appropriate investment portfolio recommendation for clients, WealthCo will first determine each client's risk tolerance.

(iv) Outline the key considerations when determining a client's risk tolerance and choice of suitable investment portfolios. [4]

WealthCo's marketing manager has proposed that clients should be split into two risk tolerance categories with each client's risk tolerance category determined using software purchased from an external provider. Investment portfolios will then be chosen from those currently available from a specialist asset manager.

(v) Suggest reasons why the manager's proposal may NOT be appropriate for the target market. [7]

An alternative proposal is to split clients into multiple (more than two) risk tolerance categories, each defined by a target portfolio volatility. Each category will have an associated strategic asset allocation (SAA) which will be used to select and review the performance of the funds recommended to clients.

(vi) Explain how the strategic asset allocations (SAAs) for each of the risk tolerance categories could be determined. [10]

(vii) Describe how the SAAs could be used for benchmarking purposes. [1]

A senior portfolio manager is proposing that these portfolios can be passively managed, with the asset allocation re-aligned with the SAA annually. He has stated that this is the only management style suitable for the target market and that the relatively low charges will be attractive.

(viii) Comment on the senior portfolio manager's proposal. [3]

[Total 43]

4 (i) State the main features of exchange traded and over-the-counter (OTC) derivatives contracts. [4]

A bank, with limited experience of derivatives trading, is considering offering its customers a facility to trade derivatives. The bank is concerned about the potential losses in the event of a customer defaulting on an exchange-traded derivative contract.

(ii) Explain how the system of margins protects the bank and the wider market from suffering such losses. [5]

The bank is particularly concerned about potential large losses suffered from customer default if markets move significantly. In order to manage customer expectations, the bank is producing a document for its customers to explain the benefits and risks of portfolio hedging using options.

The bank proposes to include the following strategies in the document about hedging portfolio risk:

- a *protective put* (a long position in a put option added to a long position in an asset)
- a *covered long call* (a short position in a call option added to a long position in an asset)
- a *straddle* (buying a call and a put with the same strike price and expiration date based on the same underlying asset).

(iii) Discuss whether each of these option strategies can be used to hedge portfolio risk. [6]
[Total 15]

END OF PAPER