EXAMINATION

2 November 2012 (am)

Subject F205 — Investment Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. Candidates will be issued with instructions to log-in using a password (which you will be provided with at the exam center).

2. Candidates are required to submit their answers in Word format only using the template provided.

3. Save your work continuously throughout the exam, on your computer's hard drive that you have been provided.

4. 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.

5. You must not start typing your answers until instructed to do so by the invigilator/supervisor.

6. Mark allocations are shown in brackets on exam papers.

7. Attempt all questions, beginning your answer to each question on a new page.

8. Candidates should show calculations where this is appropriate (these could be copied from Excel into Word).

Note: The Actuarial Society of South Africa will not be held responsible for loss of data where candidates have not followed instructions as set out above.

AT THE END OF THE EXAMINATION

Save your answers on the hard drive.

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.

Question 1

a) Describe the conceptual basis and distinguishing characteristics of the following styles of equity investing.

i. Growth

ii. Value

iii. Momentum

[10]

b) Discuss how appropriate each of the above styles would be in the following scenarios.

i. An equity trader trading for the proprietary account of an investment bank

ii. The active asset manager of a collective investment scheme in the "general equity" category

iii. An asset manager managing an equity portfolio that backs the reserves relating to the longest-dated liabilities of an immediate annuity fund of a life office

[12]

Total [22]

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Question 2

You are an asset consultant advising a South African life insurance company on a new range of savings policies that will be aimed at low income earners. Market research has determined that for savings policies the product attributes that this market segment most values are:

- Protection of capital and growth of the purchasing power of their investments
- Accessibility of savings
- Products that are easy to understand

a) Discuss the challenges of constructing investment portfolios that would satisfy these criteria.

[15]

The product development actuary stipulates that a key requirement for the new product range is that the value proposition to the client must not be eroded by high costs. For this reason, she has suggested that passive investment strategies would be preferable as far as possible.

b) Discuss the benefits and limitations of passive investment strategies for the product range.

[15]

The life company is part of a financial services group that also incorporates an institutional asset management company. This entity has indicated its willingness to align its interests with those of the life company when negotiating the structure of fees on the mandates related to the new product.

c) Describe how the features of the fee structure might be designed in order to align the interests of both parties, noting any potential drawbacks to these design features.

[6]

The head of marketing suggests that absolute return funds are the ideal investment vehicles for these products since they typically have performance targets of real returns ranging from 3% to 7% that matches what these products aim to deliver and some also attempt to ensure capital protection over 12-month periods.

d)

i. Discuss the strategies typically employed by South African absolute returns funds to achieve their performance goals.

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ii. Describe the risks that might be incurred by investing the proposed savings products in absolute return funds.

iii. Discuss how these risks could be managed.

[17]

Total [53]

Question 3

A life office has a large exposure to listed equities in one of its non-policyholder portfolios. The statutory actuary has become increasingly uneasy about the volatility of this investment and requested you, as the portfolio manager, to suggest ways to dampen the volatility without selling the holdings.

a)

i. Without reference to specific strategies, discuss the implications for the life office of using derivatives to achieve this aim.

ii. Comment on the particular merits and disadvantages of each of the following hedging strategies in this situation.

1. Buying a put
2. Buying a put spread
3. Buying a put spread collar (fence)
4. Selling listed futures

[15]

The statutory actuary has recently read an article in a financial journal about dynamic hedging (also known as delta hedging). The article states: "This is where one manages a combination of risky assets and risk-free assets according to an algorithmic formula to replicate an option payoff". The statutory actuary asks you whether this methodology would be a viable alternative to buying hedging protection from a bank.

b)

i. Describe how this mechanism could work in achieving the hedging goals of the statutory actuary.

ii. Discuss the issues that would need to be considered when evaluating such a solution.

[10]

Total Q3 [25]

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