

Actuarial Society of South Africa

EXAMINATION

28 May 2012 (am)

Subject F205 – Investment Specialist Applications

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 all four questions, beginning your answer to each question on a separate sheet.
6. Candidates should show calculations where this is appropriate.

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper

<p>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.</p>

Question 1

You are an actuary engaged as an asset consultant to a medium sized, South African defined benefit pension scheme. In the past the scheme has not explicitly included socially responsible investments (SRI) in its asset portfolio. The funding level of the scheme is under pressure, largely as a result of poor investment performance over the past three years.

Recently new employee trustees have been elected and they are strongly promoting the philosophy of socially responsible investing. As a first step these trustees would like the fund to change the benchmark for its South African equity portfolio from the JSE SWIX All Share Index to the JSE SRI Index. This would include limiting the mandate for South African equity investments to the constituents of the SRI Index.

- a) Discuss the reasons that might motivate the trustees to incorporate SRI into their asset arrangements.
[13]
- b) Describe the criteria that are employed in assessing a company's suitability for inclusion in the JSE SRI Index.
[10]
- c) Discuss the implications of implementing the change of benchmark requested by these trustees.
[10]

Total [33]

PLEASE TURN OVER

Question 2

You are an investment advisor to a large, self-administered, South African defined benefit pension scheme. Over the past few years the trustees have noted with unease the impact of global financial instability on the returns of their investment portfolios. As a result of the persistent, disturbing press coverage around the current Euro-zone crisis they wish to understand if it will have repercussions for the performance of their investment portfolios.

- a) Discuss the possible impact that the current Euro-zone crisis might have on
- i. the South African economy and
 - ii. local investment markets

[20]

The scheme's investment portfolio has for many years adopted the following long-term asset allocation benchmark (with the performance benchmarks as indicated in brackets):

Local equities	60%	(JSE ALSI)
Foreign equities	10%	(MSCI World)
Local bonds	20%	(JSE ALBI)
Foreign bonds	5%	(Morgan Stanley GBI)
Cash	5%	(STeFI)

A trustee suggests that recent events in global markets have shown the asset allocation benchmark to be obsolete. You are requested to investigate the appropriateness of this benchmark and to suggest changes that might improve its effectiveness.

- b)
- i. Explain the purpose of an asset allocation benchmark
 - ii. Discuss the factors you would need to consider in order to justify making changes to the asset allocation benchmark in this situation.

[12]

- c) Comment on any features of both the existing asset allocation and performance benchmarks that would warrant immediate consideration.

[8]

Total [40]

PLEASE TURN OVER

Question 3

As an independent investment consultant, you are approached by the CEO of a large South African life insurance company, currently undertaking a strategic planning exercise.

The CEO has been observing the low interest rate environment in the USA, where short-term interest rates have fallen almost to zero and long-term rates hover around 2%. She is interested in understanding how her company would be affected were a similar interest rate scenario to unfold in South Africa.

- a) Discuss the consequences for a South African life insurance company of such a fall in nominal interest rates, concentrating on the following types of products:
- i. term-life insurance
 - ii. immediate annuities
 - iii. guaranteed deferred annuity options
 - iv. with-profit annuities

Total [15]

Question 4

You are an independent investment consultant to ABC Securities, a large US-based securities brokerage. ABC's clients trade listed securities using ABC's on-line platform. Most of ABC's clients keep small amounts of cash in the brokerage accounts from which they trade securities. On average ABC has a balance of \$5bn of client cash in these private brokerage accounts. As part of its contractual arrangement with clients ABC automatically invests this cash into US money market funds on their behalf. ABC is entitled to earn a management fee on these money market fund assets.

Recently, however, short-term interest rates in the USA have fallen to record lows. As a result it has become common for money market fund managers to waive their management fees in order to ensure that their clients do not face negative returns on their money market fund assets. ABC faces this predicament unless it finds ways to enhance the returns on client funds.

ABC's financial director suggests that the solution is to invest the client cash in higher yielding fixed interest securities, specifically, US government bonds, US corporate debt and US mortgage backed securities.

- a) Comment on the opportunities and risks presented by the proposed solution.

Total [12]

Total Paper [100]