

Actuarial Society of South Africa

EXAMINATION

18 October 2019

Subject F205 - Investment

Fellowship Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

- 1. Follow log in and saving instructions issued to you at the exam venue.*
- 2. Save your work throughout the exam.*
- 3. You are required to submit your answers in Word format only using the template provided. You MAY NOT use any other computer program (e.g. Excel) during the examination.*
- 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.*
- 7. Attempt all questions, beginning your answer to each question on a new page.*
- 8. Candidates should show calculations where this is appropriate.*

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

**Check that you have saved your work as per instructions given to you.
Hand in your question paper with any additional sheets firmly attached.**

<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

Thando Actuaries and Consultants (TAC) launched their asset consultancy business 20 years ago in South Africa. TAC provides independent investment advice to South African retirement funds only and current assets under advice totals R50bn.

TAC has recently noticed that they are losing revenue due to the consolidation of the retirement fund industry. Clients are electing to rather join umbrella funds due to the cost savings available. They have decided to expand their investment advice-led business into international markets. TAC estimates that approximately R20m will be required to fund the expansion and they have approached you as a business consultant to advise them on how to raise this capital.

- i. a. Briefly describe the financing options available;
- b. Discuss the advantages and disadvantages of these options.

[7]

A large South African life insurer has shown interest in buying a stake in TAC. Other than providing typical life insurance products, they are also an umbrella fund provider that invests the underlying umbrella fund assets in their own investment products.

- ii. Describe the factors the insurer would consider before investing in TAC.

[12]

- iii. List the sources of information the insurer would use to analyse the factors to be considered.

[4]

One of your colleagues has suggested that TAC should increase their revenue by launching their own multi-manager investment portfolios into which clients can invest. Currently TAC outsources the asset allocation decision by advising clients to invest in balanced funds.

- iv. Outline the key advantages and disadvantages of constructing multi-manager portfolios using either balanced or specialist investment strategies.

[5]

- v. Discuss the main considerations for TAC before launching their own funds.

[10]

[Total 38]

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QUESTION 2

- i. a. Outline the key features of the South African bond market;
- b. Compare the various types of bond auctions which take place in South Africa with each other.

[6]

You have been contacted by the Chief Investment Officer (CIO) of a large South African life insurance company that writes mainly smoothed bonus retirement savings products and fixed annuities (post-retirement). She has observed that an increasing number of developed-market countries have negative-yielding 10-year government bonds. The government bond markets in some of these countries also currently exhibit yield curve inversion (where the yield on long-term instruments is lower than at the yield on short-term instruments of the same credit quality). The CIO has also noticed that the equity markets in some of these developed-market economies are near their all-time highs.

The CIO is confused by what she perceives as contradictory messages emanating from these developed market bond and equity markets. She has asked for your help in understanding these market signals.

- ii. a. Describe what the CIO is referring to by the “contradictory messages” coming from the equity and bond markets;
- b. Outline the possible reasons for the increasing incidence of negative-yielding government bonds, yield curve inversions and simultaneous highs in equity markets.

[6]

The CIO is concerned about the potential return of a high inflation environment to South Africa. She has asked you to prepare a report outlining the chances of a sustained period of high inflation (8-12% p.a.) as well as the implications for the economy and financial markets in general and the insurance company’s business in particular.

- iii. Outline the main points you would make in your report to the CIO.

[16]

[Total 28]

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QUESTION 3

You are an investment consultant who has been approached by the chairperson of a charitable foundation which supports local projects. The foundation invests its underlying assets in cash, local equities and local fixed income. The chairperson has noticed that resource sector shares (as measured by the JSE RESI index) have outperformed other primary JSE sectors over the past three years. She suggests that the foundation should investigate having exposure to commodities as she believes the strong returns from this asset class are set to continue.

You are drafting a response to the chairperson.

- i. a. Explain the factors that have driven the collective performance of commodity shares versus the other primary JSE sectors over the past three years;
b. Comment, with reasons, on whether you believe the chairperson is correct in her outlook for commodity markets in general. [5]
- ii. a. Outline the investment merits of adding commodities exposure to the investment strategy;
b. Discuss the different ways in which the foundation could obtain exposure to commodities, highlighting the advantages and disadvantages of the options. [10]

The chairperson has requested that you draft a formal report recommending whether the foundation should consider adding commodities as part of its investment strategy. This report is to be presented to all trustees at the next trustee meeting.

- iii. Outline what information regarding the foundation you would require in order to complete your report and make your recommendation. [6]
- iv. Explain how you would use the information to develop a framework for assessing the appropriateness of commodities for the foundation. [5]

After the meeting you are advised that the trustees have elected to invest a portion of the foundation's portfolio in direct commodities, but that they wish to hedge the currency exposure this introduces to the portfolio. You have been asked to draft a further report in this regard.

- v. a. Describe how this hedge can be implemented;
b. Discuss issues which should be considered before implementing the hedge. [8]

[Total 34]

[Grand Total 100]

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END OF EXAMINATION