

Actuarial Society of South Africa

EXAMINATION

24 May 2022

Subject F205 - Investment

Fellowship Applications

Time allowed: Three hours and fifteen minutes, plus an additional five minutes to allow for uploading your file in the ASSA Exam Platform

Total marks: 100

INSTRUCTIONS TO THE CANDIDATE

1. Ensure that you are logged in and authenticated through Examity before you attempt the examination.
2. The question paper is only available in the ASSA Exam Platform as a PDF download and may not be printed. Copy/paste of questions or parts thereof is only allowed between the Exam Platform and the Word answer document.
3. You are required to submit your answers in Word format ONLY using the answer template provided. No uploads of answers (handwritten or otherwise) will be accepted.
4. Ensure that your Candidate Number appears in the “header” of your Word answer template. [Select “Insert”, then “Header”, input your candidate number on the blank header template and select “Close Header”]. **Do not use your name or member number on your answer script.**
5. You may not access any file from your PC, use any other computer program (e.g. Email or Excel), or open any other browser during the examination.
6. You may not use any other material (e.g. a Formulae and Tables book) during the examination. Any such information that may be required will be provided to you within the examination.
7. You are strongly encouraged to use the first 15 minutes as reading time only, however, you may start answering the paper whenever you are ready.
8. Mark allocations are shown in brackets.
9. Attempt all questions.
10. Show calculations where appropriate. You may use blank paper to carry out rough work calculations. You may use a calculator from the approved list only.
11. Upload your Word answer file only into the ASSA Exam Platform. Once you have uploaded your file, you must click on **Finish Attempt** to save your file. You will still be allowed to go back and make changes (**Review Attempt**) if you have time.
12. Once you are satisfied with your uploaded file, click **Finish attempt** and **Finish all and Submit**. Once you have submitted you will not be able to make more changes.
13. **You must submit your answer file BEFORE the end of the allotted examination time.** Take this into account when planning your review and submission. There will be no time announcements.
14. An option to opt out of the exam will become available 1 hour after the official examination start time. If you select the Opt-Out option, you agree and understand that your entire script/answers will be deleted and cannot be retrieved at a later stage and that your script or part thereof will not be put forward for marking.

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.

END OF INSTRUCTIONS

QUESTION 1

- i. Explain and contrast the concepts of speculating and investing.

[6]

The Regulator has decided to amend Regulation 28 of the Pension Funds Act 1956. Although the primary reason for the proposed amendments is to encourage retirement funds to allocate more money to infrastructure investments, the proposals also include the insertion of a section prohibiting retirement funds from investing in crypto-assets.

The proposed amendment defines a 'crypto-asset' to mean "*a digital representation of value that is not issued by a central bank, but is capable of being traded, transferred or stored electronically by natural and legal persons for the purpose of payment, investment and other forms of utility; applies cryptographic techniques and uses distributed ledger technology.*"

- ii. Discuss the suitability of crypto-assets for inclusion in the investment strategy of a retirement fund and provide reasons why the Regulator might have decided to prohibit investment in crypto-assets.

[9]

The proposed amendment defines 'infrastructure' as "*installations, structures, facilities, systems, services or processes relating to the matters specified in Schedule 1 and which are part of the national infrastructure plan*". In its response to the request for comment on the proposed amendment, ASISA (Association of Savings and Investments South Africa) suggested the following alternative definition of infrastructure: "*any asset that has or operates with a primary objective of developing, constructing and/or maintaining physical assets and technology structures and systems for the provision of utilities, services or facilities for the economy, businesses, or the public*".

iii.

- a. Outline the reasons why ASISA may have had concerns about the definition of infrastructure in the proposed amendment and discuss the merits of the alternative definition suggested by ASISA.

[3]

- b. The proposed Regulation 28 sets a 45% limit on aggregate infrastructure investments (excluding Government and Government-guaranteed instruments). Discuss the merits of this limit and its potential impact on the investment strategy of retirement funds.

[4]

The proposed amendments also include a relaxation of the maximum limit on investment into private equity funds. The current regulation applies an overall limit of 15% to the grouping of "*hedge funds, private equity funds and other assets not referred to in this schedule*". Within this grouping, private equity funds have their own limit of 10%, hedge funds have a limit of 10% and 'other assets not referred to in this schedule' are subject to a limit of 2.5%.

The draft regulation proposes to do away with this grouping and the associated collective limit of 15%. The limit for private equity funds alone is proposed to be increased to 15%. The limits on hedge funds and 'other assets not referred to in this schedule' would remain unchanged at 10% and 2.5%, respectively.

iv.

- a. Explain why a proposal encouraging investment in infrastructure might seek to increase the limit applicable to private equity funds.

[3]

- b. Discuss the merits for retirement funds of including an allocation to private equity in their investment strategy.

[5]

[Total 30]

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QUESTION 2

- i. List the key features of a suitable benchmark for an equity portfolio.

[3]

You are the Product Development Actuary at a specialist index-tracking solution provider. You have been tasked with developing a Regulation 28-compliant, global balanced, index-tracking portfolio with a target return of CPI plus 5% p.a. after fees over rolling 5-year periods. The portfolio should be designed to be suitable for use by retirement funds as a high-growth portfolio within the default investment strategy or as a member choice option.

- ii. Outline the key considerations in setting the asset allocation (strategic and tactical) for the portfolio.

[5]

For the South African equity component of the portfolio, the FTSE/JSE indices available as a reference index are:

- All Share
- Capped SWIX
- Top 40
- Dividend Plus
- Equally-weighted Top 40

- iii. Discuss the suitability of each of the above indices as a reference index for the South African equity component of the portfolio.

[9]

The Head of Product Development asks you to investigate whether scrip lending should be used within the South African equity component of the portfolio.

- iv.

- a. Explain what scrip lending involves, including the reasons why an investor might wish to borrow scrip.

[5]

- b. Discuss the advantages and disadvantages of utilising scrip lending within the portfolio.

[4]

The Head of Sales is of the view that an approach based on investment style may be superior to simply tracking an overall market index for the South African equity component of the portfolio. They base this view on the fact that the two main investment styles – value and growth – exhibit extended periods of relative out- and under-performance. They propose a solution that uses a combination of the two FTSE/JSE style indices, with the aim of tilting, on a tactical basis, towards the style that is expected to outperform.

- v. Outline the key points you would make in your response to the Head of Sales.

[5]

[Total 31]

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QUESTION 3

As part of its retirement reform agenda, South Africa's National Treasury issued a paper detailing proposals for a two-pot retirement fund system. The proposals entail the restructuring of retirement funds (pension, provident and retirement annuity) so that future contributions are channeled into two pots – one-third of contributions to the “accessible pot” and the other two-thirds to the “non-accessible pot”. The accessible pot would allow fund members to access their savings at any time while the non-accessible pot would not be accessible prior to retirement and would need to be used to purchase an annuity at retirement.

The proposals provide for previously accumulated fund credits (vested rights) to be grandfathered under existing regulations i.e. they would not be subject to the proposed two-pot regulation.

- i. Outline the shortcomings of the current South African retirement fund regulations and explain how the proposed changes aim to address these shortcomings. [5]

You are the Investment Consultant to a medium-sized South African pension fund. The fund offers members a limited range of portfolios to choose from, but the fund's default investment strategy is a life-staging strategy. One of the fund's trustees has asked you what the proposed two-pot system would mean for the pension fund.

- ii. Discuss the potential impacts that the proposed system would have on the fund's operations and investment strategy. [10]

- iii.
 - a. Describe the taxation regime applicable to South African pension funds, including the taxation of contributions to the fund, investment returns within the fund and withdrawals from the fund. [3]

- b. Explain why the proposed two-pot system may present tax arbitrage opportunities for individuals. [3]

A trustee of the pension fund has read about the global energy price shocks experienced during 2021 and the early part of 2022. The trustee refers to the sharp rise in the price of fossil fuels (oil, natural gas, thermal coal). He is concerned about the impact of these price shocks on the pension fund's investments.

- iv. Discuss the underlying reasons behind the price rises. [4]

Higher energy prices have been a contributing factor to the recent rise in inflation across the world.

- v. Describe the impact that rising levels of inflation around the world would have had on the pension fund's assets. [9]

The trustees of the pension fund have appointed a consultant to advise them on the Environmental, Social and Governance (ESG) aspects of the investment strategy.

- vi. The ESG consultant recommended that the pension fund divest from all of its investments in fossil fuel producers. Discuss the merits of this advice. [5]

[Total 39]

[Grand Total 100]

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END OF EXAMINATION