

INVESTMENT

ASSIGNMENT SEMESTER 2 2023 –

FEEDBACK FOR STUDENTS



Feedback materials

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Assignment purpose

The main purpose of the assignment from your perspective was to help you develop skills required at the Fellowship level. These skills are also required by employers.

The specific skills that were being developed and assessed in the assignment are the ability to

- apply subject material in an unfamiliar context;
- plan a model;
- determine the appropriate assumptions for the model;
- build and manipulate a spreadsheet for the model;
- communicate relevant points in language appropriate to the audience, in a logical and coherent manner; and
- meet business standards for presentation of work in written materials and spreadsheets.

You will be required to apply knowledge to specific situations in the time-constrained end of semester examination. This assignment provided an opportunity for you to think more deeply and spend more time preparing a detailed answer. This assignment also helped you reflect on your writing skills. Whilst there was ample time to write any required report for the assignment, you should consider if you need to spend more time improving your writing skills to help you pass the examination.

The assignment required you to create a set of assumptions for the model that you built. There is no single right answer, consequently, you were assessed on your reasoning and process. We therefore wanted to understand *how* you derived your assumptions. It is important that you described what you did as the marker needed to understand if you



were able to apply knowledge to the specific situation described in this assignment. We were also looking for you to demonstrate that you could deal with uncertainty in a reasonable way.

A key actuarial skill is to obtain a grasp of the qualitative nature of outputs from models and describe them in a non-technical manner. This assignment avoided complicated modelling and was designed to test your ability to deduce and communicate issues relating to the valuation of a listed equity, using simple models.

Overview of assignment content

In this assignment candidates were:

- provided a scenario where they are a consulting actuary advising the Board of Trustees of a newly established public offer defined contribution superannuation fund (the Fund) that competes with other similar funds to attract members;
- provided with data on the return of various asset classes as well as inflation over the period 1990 to 2022;
- advised that they may use publicly available information from major Australian superannuation funds that are among the competitors of the Fund.
- asked to conduct an analysis and make recommendations on:
 - the investment objectives for each of the two investment options; and
 - the strategic asset allocation for each investment option that is appropriate to meeting the investment objectives.
- required to prepare a clear and concise report of no more than 3,500 words that:
 - explains the data and the model that used in the analysis;
 - explains the assumptions required in the model used in the analysis;
 - proposes the investment objectives and strategic asset allocation for each of the two investment options (growth and defensive)
- required to submit an Excel spreadsheet that shows how they have conducted the necessary analysis.



The specific questions to be answered were:

- 1) Explain why you decided to use the particular data (sourced from the file made available in the LMS) and any of the other information that you have sourced and used in your analysis **(10 marks)**
- 2) Explain the assumptions that have been required in the model that you have used for your analysis. Note that there may be assumptions needed that are not numerical. You should ignore taxation. **(15 marks)**
- 3) Describe how you have estimated the parameters (the numerical values) assigned to each assumption where a numerical parameter is required. **(10 marks)**
- 4) Explain how you have allowed for uncertainty in the model **(10 marks)**
- 5) Demonstrate your model by attaching the Excel spreadsheet that you have built showing the input to and output from the spreadsheet analysis that you have completed and how variations in assumptions affected the output. Note that the Excel spreadsheet needs to be lodged as a separate document even if parts of it are shown in the Word document. **(10 marks)**
- 6) Explain how you derived the investment objectives for each of the investment options in terms of measures of return and risk **(10 marks)**
- 7) Explain how you derived the strategic asset allocation for each of the investment options **(10 marks)**
- 8) Propose the investment objectives and strategic asset allocation that you think are appropriate for each of the two investment options **(15 marks)**

Results summary

Overall, candidates performed well on the assignment with a pass rate of 84%. The average score of 13.9/20 (69.6%). Scores ranged from a low of 8.0/20 (40.0%) to 19.3/20 (96.5%).

A summary of the results by grade is presented in the table below.



Grade	Number of students	Percentage of students 2023 S2	Percentage of students 2022 S2	Percentage of students 2021 S2
Significantly above pass level	11	15%	9%	16%
Above pass level	31	41%	33%	51%
Pass level	21	28%	42%	26%
Below pass level	12	16%	14%	7%
Significantly below pass level	0	0%	2%	0%
Grand Total	75	100%	100%	100%

Overall feedback

We expected most students to pass the assignment and for a high proportion to perform well because students are not time-pressured when working on their submissions. We also expected that students would closely follow the directions we provided in the rubric.

The following feedback from the assignment has been provided to help you to prepare for the exam.

Fully answer the questions.

Make sure you answer all parts of the questions. It is important to go back to the questions after you have started writing to ensure you are answering the question asked. Similarly, apply the information provided in the questions.

After you have drafted your answer, it is always a good idea to re-read the question and physically tick off that you have answered all parts of it. You should also make sure you have addressed all areas described in the marking rubric.



Review your work.

Given that this assignment is worth 20% of your final grade and you did not have the time pressure of exams, you were expected to spend some time reviewing your work and making sure your assignment was easy to read. A lot of issues around the clarity of explanations could have been avoided by proofreading and spending time “getting the easy marks” for report writing.

At a minimum, you should use an automatic spelling and grammar checker.

Use structure.

Remember that each paragraph should cover a single topic. Each paragraph should have a clear beginning, middle and end that relate to this single topic.

Write concisely and clearly.

Keep your answers succinct and use dot points where appropriate.

Results and feedback by question

The results of the grades awarded by the markers by question are shown in the table below. Each question in the assignment was marked out of 5, in line with the rubric grading. For example, a student who achieved a “pass” standard for Q1 was awarded a 3 out of 5 and this contributed 10% towards their overall grade.

Question	1	2	3	4	5	6	7	8	Report Writing
Weighting	10%	15%	10%	10%	10%	10%	10%	15%	10%
Average	3.1	3.1	2.9	3.2	3.4	3.4	3.2	3.1	3.1
Min	1.0	1.0	4.0	1.0	1.0	2.0	2.0	2.0	1.0
Max	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0
St Dev	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8



Key observations:

- on average students performed at an at least pass (3/5) level on 7 of the 8 of the questions;
- there was a substantial dispersion of grades achieved in each question;
- students performed strongest, on average, on demonstrating their analysis in the form of an Excel spreadsheet (Q5) and in explaining how they derived the proposed investment objectives (Q6);
- the weakest result was in Q3 which required an explanation of how the parameters for the model were derived; and
- it was evident to the markers that many students had thought deeply about the questions and performed detailed analysis.
- stronger answers were able to summarise information and communicate their understanding clearly and concisely.
- there was a common factor across most of the weaker answers: they failed to provide explanations across most of the questions, as required and made clear by the command verb "explain".

Areas for improvement

- candidates in the Investment subject need to practice and improve their skills in:
 - reading and understanding the questions;
 - organising their analysis and thinking so that they come up with responses to the questions that are being asked, that are clear, concise, and complete.
- candidates need to become more familiar with how the command verbs communicate the nature and the level of each question and this will come mainly from practice in writing answers to the exercises and past exam questions.
- candidates need to be able to produce a report that is a standalone document without having to be read in conjunction with a related spreadsheet.



Key learning points for students

- Explaining the reasons for assumptions in a model as well as the output of a model, is more important than building a spreadsheet analysis for the model. Spend more time and effort and focus on explaining methodology, assumptions, and results.
- Practice writing skills in order to be able to summarise information, and be concise, clear, and complete, when responding to questions in assignments or examinations.
- Rather than providing generic points, relate the responses to the scenario and context given in a question.

Will we get feedback on our assessment?

Our approach to feedback is for students to receive general feedback and a sample assignment that achieved a grade of 'significantly above pass level'.

For the assignment, you should use the general feedback and marking rubric to grade the sample assignment and your submission. This will help you to compare the assignments and identify areas where your submission could have been improved.

We believe that this active approach will provide you with a deeper understanding of where you need to improve. This is the best way for you to learn about areas of strength and weakness in your understanding. We do not provide students with individual feedback on their assessments.

At the end of the semester, you will receive:

- a letter to indicate whether you have passed or failed the subject;
- if you have failed the subject, a breakdown of your grade for each assessment;
- general feedback to all students about assignments and exam performance;
- a sample assignment that was graded as 'significantly above pass level'; and
- the exam marking guide.

EXAMPLE OF ASSIGNMENT

A model answer will be posted to LMS.