

# **Investment**

## **Assignment Semester 2 2024 – Feedback for students**





## Feedback materials

- Assignment purpose
- Assignment overview
- Results summary
- Overall feedback
- Results and feedback by question
- Example of assignment

## Assignment purpose

The main purpose of the assignment from your perspective is to help you to evaluate and apply methods for the valuation of assets and for asset selection for investment portfolios.

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

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

These skills will also help you pass the end of semester assessment and perform well in the workplace.

The assignment requires you to create a set of sensible **assumptions** and parameters. You need to demonstrate *how* you derived your assumptions or model parameters. It is important that you describe what you did as the marker(s) will want to understand if you are able to apply knowledge to the specific situation described in this assignment. We are also looking for you to demonstrate that you can deal with uncertainty in a reasonable way.

The assignment requires you to build and use a model. A key actuarial skill is to obtain a grasp of the qualitative nature of outputs from models and describe them. This assignment is designed to test your ability to explain your model(s) and their outputs to a non-technical audience.



## Overview of assignment content

The candidates were asked to

- 1) prepare a valuation of two of the equity securities held in a portfolio of Australian listed equities: Rio Tinto (ASX code RIO) and Fortescue Metals Group (ASX code FMG) in Excel spreadsheet form; and
- 2) prepare a report for the portfolio managers covering various issues that may affect the valuation and also the market prices of RIO and FMG over the next 5 years and make recommendations about the proposed purchase and sale prices and relative portfolio weights for each of RIO and FMG .

The candidates were provided with financial and other information about RIO and FMG that is relevant to the valuation and the report. They were also told that they may source and reference other information that is publically available to assist in their understanding of each of FMG and RIO and any issues that may have affected their profitability or the market price of their equity securities in the past or may do so in the future. The report word limit was 3000 words including any words that are contained in tables included in the report. Candidates were advised that the markers may not read past 3000 words. The quality of report writing counted for 10 marks in the assignment. There were 10 questions to be answered which were (with Marks indicated):

- 1) Justify which cash flow (FCF or NATP) will be valued in the DCF model that you employ and the forecast periods used in the DCF model **(8 marks)**
- 2) Describe how two significant aspects of the operations of each of FMG and RIO will influence the assumptions about the cash flow and net earnings that need to be incorporated in the valuation model that you will be using, referencing the components of each of the revenue and expenses, and how they may, in the future, differ from the past experience. **(8 marks)**
- 3) Describe two issues that may affect the market demand for and the price of the equity securities, of each of FMG and RIO, and how they will influence the assumptions that need to be incorporated in the valuation model, such as the discount rate. **(8 marks)**
- 4) Explain how each of the assumptions that affect the cash flows, such as the components of each of the revenue and expenses, have been incorporated into the DCF valuation model that you are using for each of RIO and FMG **(12 marks)**
- 5) Explain how you have derived the discount rates used in each of the DCF valuation models for FMG and RIO. **(8 marks)**



- 6) Explain how you have derived the cash flows used in the valuation model from the information provided in the LMS, and from other information that you have sourced, and any parameters, such as future iron ore prices or volumes, that you have had to estimate for any of the assumptions. **(12 marks)**
- 7) Explain how you have used either sensitivity analysis or scenario analysis to allow for uncertainty relating to the cash flows in the valuations of FMG and RIO. **(8 marks)**
- 8) Prepare a valuation of each of FMG and RIO equity securities in Excel spreadsheet form with either a scenario or sensitivity analysis to test the effect of uncertainty in the assumptions on your valuation. **(12 marks)**
- 9) Describe the sensitivity of the valuations of RIO and FMG equity securities to changes in the discount rate. **(6 marks)**
- 10) Propose for each of FMG and RIO:
  - a) a maximum price at which their equity securities should be bought and a minimum price at which they should be sold.
  - b) the weighting that each should be held in the portfolio relative to its weighting in the ASX200. **(8 marks)**

## Results summary

Overall, students performed well on the assignment with a pass rate of 77.5% and an average score of 12.9 /20 (64.5%). A summary of the results is presented in the following table:

Grade	Number of students	Percentage of students
Significantly above pass	1	1.25%
Above pass	16	20.00%
Pass	45	56.25%
Below pass	18	22.50%
Total	80	100%



### Overall feedback

We expect 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 expect that students will closely follow the directions we provide in the rubric.

We expect most students to pass the assignment and for a significant proportion to perform well because of the guidance provided in the rubric and the fact students are not time pressured while working on their submission and have the opportunity to review their completed assignment versus the rubric before submitting the assignment;

Students who passed showed that they had read and understood the questions, most of which required them to explain aspects of the model and assumptions employed and the rationale for their proposals.

Students who did not pass exhibited one or more of the following:

- failed to answer one or more of the questions at all; or
- did not identify their answers with the questions; or
- did not answer the question that was being asked; or
- provided insufficient explanation of the assumptions used the DCF model.

### General tips

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

#### Fully answer 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 clarity of explanations could have been avoided by proof reading and spending time “getting the easy marks” for report writing.

### Use structure

Remember that each paragraph should cover a single topic. Each paragraph should have a clear beginning, middle and end which 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 table below provides the results by question.

Each part of 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 8% towards their overall grade.

	1	2	3	4	5	6	7	8	9	10
Weighting	8%	8%	8%	12%	8%	12%	8%	12%	6%	8%
Average	3.4	3.4	3.0	3.4	3.2	3.3	3.2	3.4	3.0	3.1
Min	2.0	2.0	0.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0
Max	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
St Dev	0.7	0.7	1.0	0.7	0.8	0.9	0.8	0.7	0.7	0.8



### Key observations:

- all questions had an average grade which was at pass level and there was a similar degree of dispersal of grades across all ten questions so that on average, candidates performed at a pass (3/5) level or better on each component question of the assignment;
- more candidates performed better on the questions which were either more numerically based (Questions 2 and 8) or process oriented (Question 6):
- a smaller proportion of candidates performed well on questions requiring more explanation (Questions 4 and 5), dealing with uncertainty (Questions 7 and 9), or requiring judgement (Question 10);
- Observations on specific questions:
  - Question 1: some candidates did not justify the forecast periods used in the DCF model, as required;
  - Question 2: some candidates did not describe how conditions that may affect operations of FMG and RIO, and influence the assumptions about the cash flow and net earnings, may in the future, differ from the past experience;
  - Question 3 which required explanation of non-numerical factors affecting market perceptions of the equity securities was arguably the least well done, with 29% of candidates achieving a below pass grade on this question, with some candidates providing generic comments not related to the market demand for and the price of the equity securities, of each of FMG and RIO;
  - Question 6: some candidates did not explain the linkages between the cash flows used in the valuation model and the information provided in the LMS, and any other information that had been sourced;
  - Question 7: some candidates did not explain how either sensitivity analysis or scenario analysis had been used to allow for uncertainty relating to the cash flows;
  - Question 10: some candidates did not propose prices as required by the question.

### Key learning points for students

- Practice and improve skills in:
  - reading and understanding questions;
  - organising analysis and thinking to enable responses to the questions that are being asked, that are clear, concise, and complete;
  - writing, to be able to summarise information, be concise and to the point. More words is not always better;



- making reports readable as standalone documents without having to refer to a spreadsheet, using an appendix for key tables. (Note that words in the appendix are counted in the word limit.)
- Explaining the rationale of the model, the assumptions used, inputs for assumptions (parameters), and outputs of the model, is more important than the spreadsheet analysis so spend more time focusing on explaining methodology and results.
- Rather than providing generic points, students should answer the questions and tailor their responses to the scenario and context given.

## Will we get feedback on our assessment?

Our approach to feedback is for students to receive general feedback, a sample assignment marked as 'significantly above pass level' and the marking guide for the exam. You should review the feedback that is provided as well as the sample assignment and exam marking guide. 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. For the exam, you should use the general feedback and the marking guide to identify areas where you could improve your future exam performance.

Our belief is that this active approach to studying will provide you with a deeper understanding of where you need to improve. This is the best way for you to learn about your 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 assignment and exam performance;
- a sample assignment that was graded as 'significantly above pass level'; and
- the exam marking guide.

## EXAMPLE OF ASSIGNMENT

A sample assignment marked as 'significantly above pass level' will be posted to LMS.