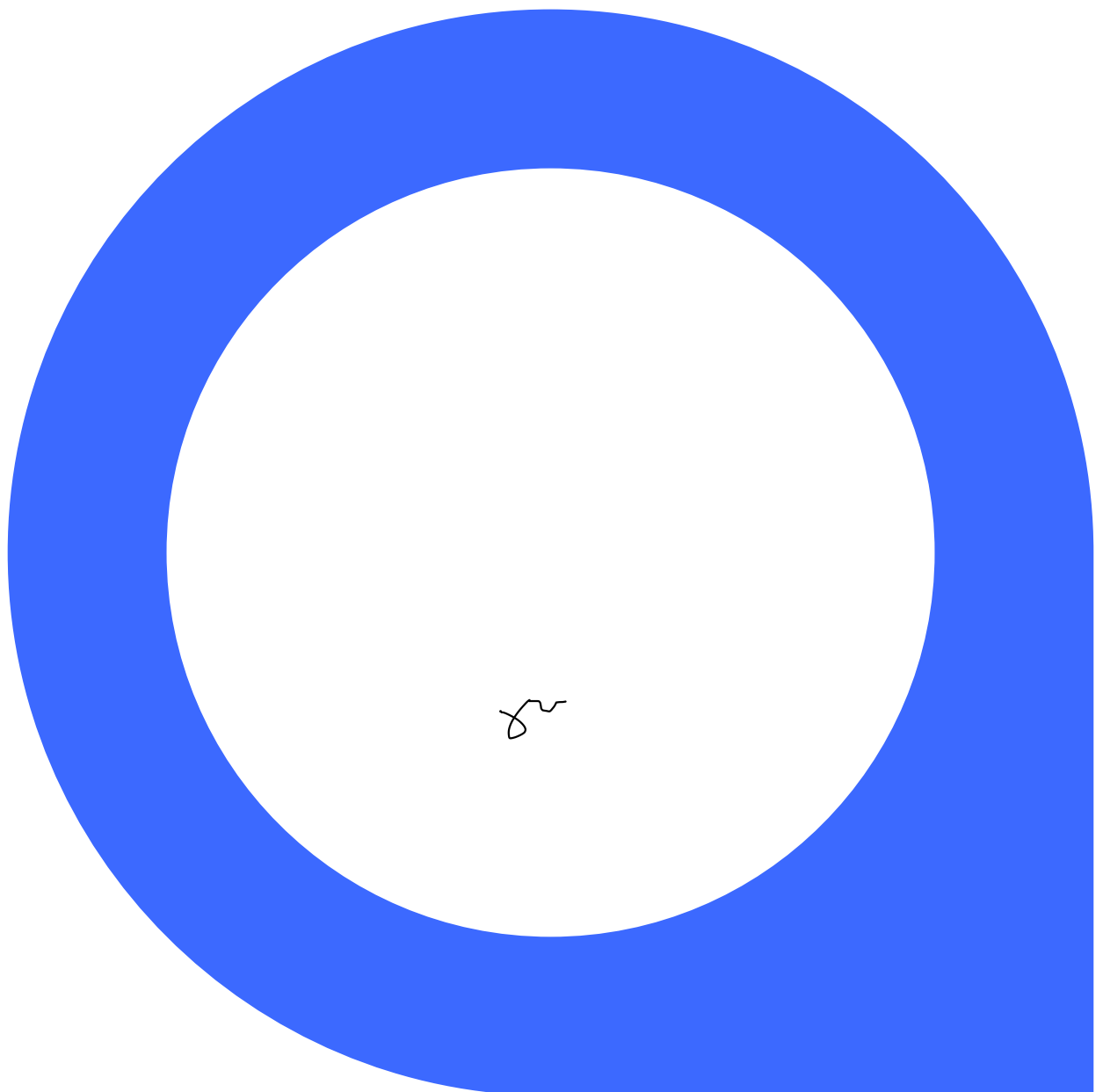


# Investment

Exam Semester 2 2024





**Subject Title:** Investment

**Date:** Friday, 18 October 2024

**Time:** 15 minutes  
(Planning Time)

3 hours  
(Examination)

## Instructions:

You will have 3 hours and 15 minutes to complete your examination with an additional 10 minutes for submission.

You may commence typing during the planning time and remember to save your work regularly.

Type your answers using Microsoft Word and ensure that there are no links to spreadsheets.

Candidates are required to answer all questions.

Include your member ID in the header and footer on each page of the Microsoft Word document.

Question	Marks
1	20
2	20
3	20
4	20
Total	80

This paper has eight (8) pages (including the title page).



**QUESTION 1**

**(20 Marks)**

In the Assignment in this subject, you were asked to:

- 1) prepare a valuation of two of the equity securities held in a portfolio: Rio Tinto (ASX code RIO) and Fortescue Metals Group (ASX code FMG)
- 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.

Using the knowledge and understanding that you have gained from this please answer the following questions:

- a) Explain two of the most important risks to the net after tax profit for RIO over the next 5 years, with supporting evidence. **(6 marks)**
- b) Explain the actions that RIO can take to mitigate these risks. **(4 marks)**
- c) Propose an investment research program to support the ongoing valuation of FMG and RIO. **(6 marks)**
- d) Evaluate the use of sensitivity analysis and scenario analysis to allow for uncertainty in the valuation of the equity securities of RIO and FMG. **(4 marks)**

**END OF QUESTION 1**



## QUESTION 2

(20 Marks)

You are the newly appointed Chief Investment Officer of an Australian defined contribution fund with \$A200 billion in its Balanced Investment option. This investment option has:

- members account values based on daily unit prices
- achieved an average return for members of 8.1% p.a. over the last 20 years.
- had a consistent positive cash flow because contributions have exceeded benefit payments (the average age of members is 42);
- a multi-asset class asset allocation with 15% in unlisted property (mostly income producing commercial real estate);

In June 2017 the unlisted property portfolio purchased a 20-storey commercial office building in central Manhattan which was 100% leased to tenants. The purchase price was \$US520 million and the USD/AUD exchange rate was 0.7692. The Fund partly financed the purchase with a three-year fixed rate interest-only loan of \$US400 million at 4.0 % p.a. above the US 10-year Treasury Bond yield, which was renewed for a further three-years in 2020 on the same basis when the US 10-year Treasury Bond Yield was close to an historic low.

The asset was subsequently revalued each year in line with GIPS standards. In early 2020 it was valued at \$US540 million.

Since 2020 there has been:

- a downturn in office occupancy in New York,
- a rise in the 10 year US Treasury Bond yield from 1.5% p.a. to 4.3% p.a. which increased the debt servicing costs significantly.
- a significant default on rent from a major tenant which occupies over 30% of the building which contributed to the net operating income declining from \$US29 million to \$US22 million as occupancy fell.
- a significant increase in the capitalisation rate for the building due to the rise in the bond yield and the problem related to a major tenant as well as the expiry of another major lease in 2024.

The management of the Fund needed to choose between:



- (a) retaining the asset and continuing to fund the negative net income from the asset for some indeterminate period and substantially reducing the value of the holding in its unlisted property portfolio; or
- (b) defaulting on the debt, transferring ownership to the lender, and reducing the value of its holding to zero

**Questions**

- a) Explain two potential major risks that could have been foreseen at the time of acquisition (2017) of the office property in New York and how each of them could have been mitigated **(8 marks)**
- b) Explain two reasons why a regular valuation of the office property is required and how the need to have daily unit prices can be accommodated. **(4 marks)**
- c) Examine four factors that would support choosing option (b). **(8 marks)**

**END OF QUESTION 2**



**QUESTION 3**

**(20 Marks)**

You are a director and part owner of an investment management firm that has successfully managed private equity (PE) funds since 2009. Conditions for private equity investment have become more difficult since 2022 because:

- Most private equity investments are partly financed with debt, which was very cheap between 2009 and 2021 with very low interest rates due to prevailing monetary policy in most major countries where private equity investments are made, whereas tightening monetary policy since 2022 to control inflation, has made debt much more expensive.
- Many private equity investments are typically realised via Initial Public Offerings (IPOs), leading to significant performance fees being paid to PE managers, but since 2022, there has been a major contraction in the market for IPOs.

Meanwhile there has been large scale growth in Private Credit funds, set up to fill the gap in lending facilities left by commercial banks subject to more onerous regulation following the Global Financial Crisis of 2009. The assessment of and investment in Private Credit assets requires a skill set and experience that is different from that needed for Private Equity.

Your fellow owners of the firm have proposed offering Private Credit funds to your investor base, to help maintain the growth of the firm.

**Questions**

- a) Discuss your views on whether or not the economic and investment market conditions which have applied since 2022 will continue for the next 5 years, with reference to the impact on private equity and private credit assets. **(6 marks)**
- b) Explain the differences in the drivers of return and risk of Private Equity and Private Credit investments. **(8 marks)**
- c) Propose the steps required for the firm to evaluate whether to proceed with the proposed expansion into Private Credit. **(6 marks)**

**END OF QUESTION 3**



**QUESTION 4**

**(20 Marks)**

Norges Bank Investment Management (NBIM) manages the Government Pension Fund Global (the Fund) which was established after Norway discovered oil in the North Sea. The Fund:

- serves as a financial reserve and as a long-term savings plan for both current and future generations of Norwegians;
- is valued at \$US 1.473 trillion
- has \$US 28 billion (1.9% of the total) invested in a portfolio of unlisted real estate with 897 properties across 14 countries.

The unlisted real estate portfolio is subject to these restrictions:

1. Regional allocations:
  - a. United States of America: 30-70 per cent
  - b. United Kingdom: 10-40 per cent
  - c. Germany: 0-20 per cent
  - d. France: 0-30 per cent
  - e. Japan: 0-20 per cent
  - f. Other individual countries: 0-10 per cent
2. Sector allocations:
  - a. Office: 40-70 per cent
  - b. Retail: 0-30 per cent
  - c. Logistics: 0-40 per cent
  - d. Other: 0-10 per cent
3. The debt ratio shall not exceed 25 per cent. No single property asset shall be financed with more than 70 per cent debt measured against the value of the asset at acquisition or when refinanced.
4. The average economic vacancy rate shall not exceed 15 per cent. Properties under development shall be excluded from this calculation.



**Questions**

- a) Evaluate the unlisted real estate restrictions for their effectiveness in mitigating the risks which have been experienced in recent years by institutional investors in unlisted real estate  
**(12 marks)**
- b) Determine whether the Fund should continue with unlisted real estate investment  
**(8 marks)**

**END OF QUESTION 4**

**END OF EXAMINATION**