



STRATHMORE BUSINESS SCHOOL
BACHELOR OF FINANCIAL SERVICES
END OF SEMESTER EXAMINATION
BFS 3202: VENTURE CAPITAL AND PRIVATE EQUITY

DATE: Monday, 16th December 2024

TIME: 13:00 – 15:00

INSTRUCTION:

1. Question One is **compulsory**
2. Answer any **TWO** questions choosing from question two to five

QUESTION ONE

(30 Marks)

Mr Spencer, a high net worth individual, is considering investing in a Private Equity Company or Listed Company. He is not sure which is the best given that he very risk averse.

(a) Using **THREE** attributes, distinguish between private equity and public equity investing and suggest the better option for Mr Spencer. **(7 Marks)**

(b) Mr Spencer goes ahead and decides to invest in private equity. Highlight **THREE** benefits that Mr Spencer will achieve from Investing in Private Equity. **(3 Marks)**

(c) Master Technologies is a biotech firm; whose entrepreneur founders believe they can sell the firm for \$60 million. They need \$7.5 million in capital now, and the entrepreneurs currently hold 1 million shares.

Fillers Venture capital fund decides that given the high risk of Master technologies, a discount rate of 40% is appropriate.

Required

Compute the following:

- The Post-Money Valuation **(2 Marks)**
- The Pre-Money Valuation **(2 Marks)**
- The Ownership Fraction **(2 Marks)**

-The Number of Shares (2 Marks)

-The Price per Share (2 Mark)

(d) Suppose that instead of a single round of financing of \$7.5 million, the firm will need \$5 million in the first round and a second round of financing (three years later) of \$2.5 million to finance firm expansion to the size expected at exit.

Use a discount rate of 40% for the first three years and 30% for the last two years. The firm is still expected to be worth \$60 million after five years, and founders will hold 1 million shares.

Required:

Compute the various metrics at the different stages of financing indicating the number of shares and price per share for each investor (10 Marks)

QUESTION TWO (20 Marks)

(a) Discuss FIVE strategies that the private equity fund can use to align its interest with those of the management of the private equity company. (10 Marks)

(b) ABC Fund has a committed capital of \$200 million and carried interest of 20%. An investment of \$80 millions is made. Later in the year, the fund exits the investment and earn a profit of \$40 million.

Required:

Determine whether the GP receives any carried interest under the three waterfall distribution methods. (6 Marks)

(c) Continuing with (b) above, assume in the second year, another investment of \$50 million is exited and results in a loss of \$8 million. Assume the deal-by-deal method and a clawback with annual true-up apply.

Required;

Determine whether the GP must return any former profits to the LPs. (4 Marks)

QUESTION THREE (20 Marks)

(a) Explain the meaning of the following Private Equity Fund terms:

(i) Ratchet (2 Marks)

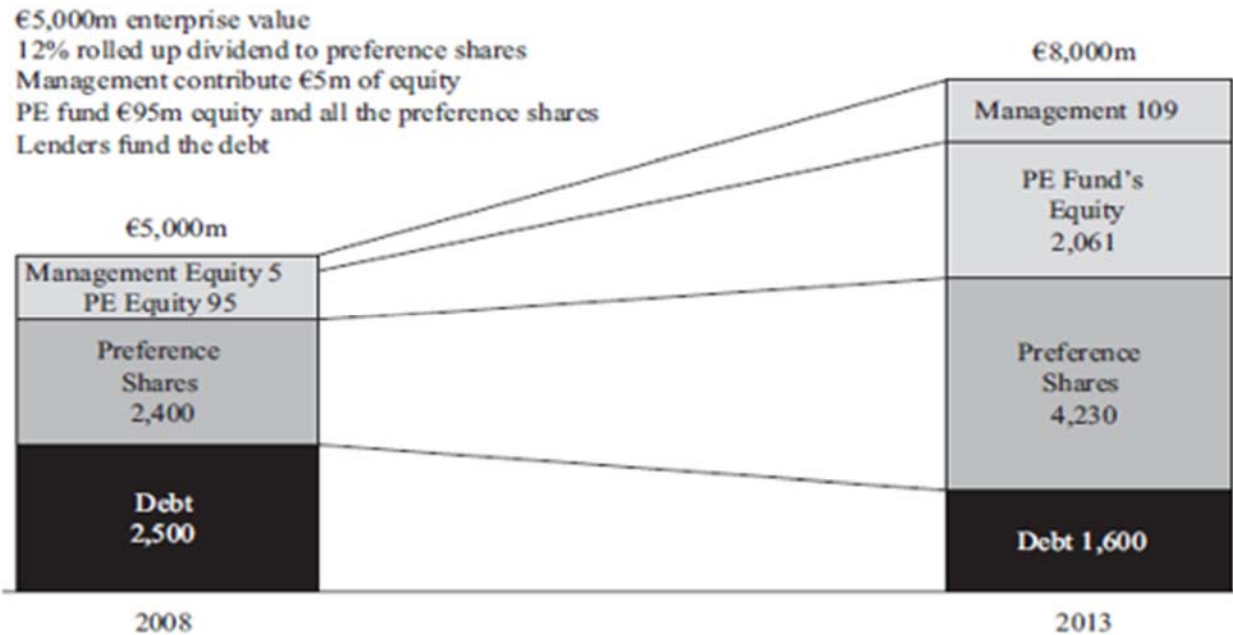
(ii) Hurdle Rate (2 Marks)

(iii) Removal for cause (2 Marks)

(iv) Divorce for cause (2 Marks)

(b) Provide **FOUR** aspects that differentiate the valuation of Venture Capital companies from Buyout Companies. (8 Marks)

(c) The following diagram summarizes the initial investment and final payouts for various investors in a Private Equity Company:



Required;

Compute the Multiplier and Internal Rate of Return (IRR) for the Management and PE Fund's equity. (4 Marks)

QUESTION FOUR (20 Marks)

(a) Discuss **FOUR** characteristics of private equity investing (8 Marks)

(b) The GP for ABC Private Equity Fund charges a management fee of 2% and carried interest of 20%, using the first total return method. The total committed capital of the fund is sh.15 billion

The following data applies for years 2018 to 2023:

Required:

(i) Complete the following table given the information therein:

Year	Capital Called Down	Paid-in-Capital	Management Fees	Operating Results	NAV before Distribution	Carried Interest	Distributions	NAV after Distribution

	Sh.m	Sh.m	Sh.m	Sh.m	Sh.m	Sh.m	Sh.m	Sh.m
2018	5,000.00			- 1,000.00				
2019	2,000.00			- 2,500.00				
2020	3,000.00			2,500.00				
2021	2,000.00			5,000.00			2,000.00	
2022	1,000.00			6,000.00			4,000.00	
2023	1,000.00			11,000.00			8,000.00	

(9 Marks)

(ii) Compute the following metrics for year 2023:

-Distributed to paid-in capital (DPI)

-Residual value to paid-in capital (RVPI)

-Total value to paid-in capital (TVPI)

(3 Marks)

QUESTION FIVE

(20 Marks)

(a) Highlight **SIX** components of deal structuring in Private Equity Investing. **(6 Marks)**

(b) Private Equity Funds are known to be the main channel for private equity investing. However, recently, hedge funds can also be used as mediums for private equity investing. Discuss **FOUR** benefits of using hedge funds in private equity investing. **(8 Marks)**

(c) Distinguish between Machine Learning (ML) and Artificial Intelligence (AI) and how they are applied in private equity investing. **(6 Marks)**