



CPA PART III SECTION 5

ADVANCED FINANCIAL MANAGEMENT

THURSDAY: 23 May 2019.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE

- (a) Discuss four applications of the capital asset pricing model (CAPM). (8 marks)
- (b) Dzikunze Manufacturing Limited is considering to raise an extra Sh.10 million in order to finance an expansion programme.

The company's current capital structure is given as follows:

| | Sh. "000" |
|--|----------------|
| Ordinary share capital (Sh.20 par value) | 50,000 |
| Reserves | 20,000 |
| 14% debenture capital | 20,000 |
| 10% preference share capital | <u>10,000</u> |
| | <u>100,000</u> |

Additional information:

1. The company is considering raising the funds using two alternative financing options namely:

Option I:

To raise all the funds through the issue of new ordinary shares at par.

Option II:

To raise half of the funds through the issue of new ordinary shares at par and the balance through the issue of new 12% debentures at par.

2. The corporation tax rate is 30%.

Required:

- (i) Earnings before interest and tax (EBIT) at the point of indifference in company's earnings for each financing option. (8 marks)
- (ii) Earnings per share (EPS) at the point of indifference in (b) (i) above. (4 marks)

(Total: 20 marks)

QUESTION TWO

- (a) The Unclaimed Financial Assets Authority (UFAA) was created under the Unclaimed Financial Assets Act, No.40 of 2011 to administer unclaimed financial assets.

Required:

With reference to the above statement, summarise six specific roles of the Unclaimed Financial Assets Authority or equivalent authority in your country. (6 marks)

- (b) ABC Ltd. is a company listed in the local securities exchange. The company is foreseeing a growth rate of 12% per annum in the next two years. The growth rate is likely to be 10% per annum for the third and fourth year, then it will stabilise at 8% per annum in perpetuity.

The latest dividend to be paid was Sh.1.50 per share.

The required rate of return is 16%.

Required:

The intrinsic value of the share.

(4 marks)

- (c) Umoja Group of companies belongs to a risk class of which the appropriate capitalisation rate is 10%.

The company currently has in issue 200,000 ordinary shares selling at Sh.50 each. The company is contemplating the declaration of dividend at the rate of Sh.3 per share at the end of the current financial year which has just begun.

Required:

Using Modigliani and Miller proposition on dividend irrelevance, determine:

- (i) The price of the ordinary shares at the end of the year, assuming a dividend is not declared. (2 marks)
- (ii) The price of the ordinary shares at the end of the year, assuming a dividend is declared. (2 marks)
- (iii) Assuming that the company generates a net income of Sh.2,000,000 and makes new investments of Sh.4,000,000 during the period.

Show that under the Modigliani and Miller's assumption, payment or non-payment of dividends has no effect on the company's value. (6 marks)

(Total: 20 marks)

QUESTION THREE

- (a) Discuss four types of risks associated with investment in real estate investment trust (REITs) securities. (8 marks)
- (b) Zomolo Limited is a firm operating in the manufacturing industry. The firm's current capital structure is given as follows:

| | Sh. "000" |
|---|----------------|
| Ordinary share capital (Sh.10 par value) | 80,000 |
| Reserves | 20,000 |
| 10% irredeemable debenture capital (Sh.100 par value) | 30,000 |
| 8% preference share capital (Sh.20 par value) | <u>20,000</u> |
| | <u>150,000</u> |

Additional information:

- The current market price per share (MPS) of the firm's ordinary shares is Sh. 34.80 cum-dividend.
- The firm adopts a 60% dividend payout ratio.
- The most recent earnings per share (EPS) of the firm is Sh.8.00.
- The historical dividend per share (DPS) over the last four years are given as follows:

| Year | Dividend per share (DPS) (Sh.) |
|------|-----------------------------------|
| 2015 | 4.00 |
| 2016 | 4.20 |
| 2017 | 4.50 |
| 2018 | 4.80 |
- The firm's management is contemplating to invest in a project which would cost Sh.40 million. The project is expected to generate Sh.9 million each year in perpetuity.
- The project has an estimated beta of 1.50.
- The return from a well diversified market portfolio is 18%.
- The debentures are considered to be risk-free and are valued at par.
- The existing 8% irredeemable preference shares are currently trading at Sh.25 each.
- The corporation tax rate is 30%.

Required:

- (i) The firm's return on equity (ROE) using Gordon's growth approximation method. (3 marks)
- (ii) The firm's existing weighted average cost of capital (WACC). (6 marks)
- (iii) The project's risk adjusted discounting rate (RADR). (3 marks)

(Total: 20 marks)

QUESTION FOUR

- (a) Kadzenga Limited is a Kenyan company with a substantial proportion of its trade with companies in the United States (US). Kadzenga Ltd. invoiced a US firm 60,000 United States Dollars (USD) receivable 3 months from now.

Additional information:

1. The borrowing rate is 3% above the bank base rate while the investing rate is 2% below the bank base rate. These rates apply both in Kenya and the United States.
2. The bank base rates in Kenya and the US are 15% and 10% per annum respectively.
3. The exchange rates in the forex market between the Kenya Shilling (Ksh) and the United States Dollar (USD) are as follows:

| | Ksh/1 US (\$) |
|-------------------------|---------------|
| Spot exchange rate: | 103-105 |
| One month forward rate: | 102-103 |
| 3-months forward rate: | 101-102 |

Required:

Calculate the amount to be received by Kadzenga Limited using:

- (i) Forward contract hedge. (2 marks)
 - (ii) Money market hedge. (6 marks)
 - (iii) Using the results obtained in (a) (i) and (a) (ii) above, advise the management of Kadzenga Limited on the best hedging strategy. (2 marks)
- (b) Ziani Limited, an unlevered firm has in issue 10 million ordinary shares that are currently selling at the securities exchange for Sh.20 each.

Additional information:

1. The firm's most recent earnings per share (EPS) is Sh.4.0 and adopts a 100% dividend payout.
2. It is expected that the firm's future dividends in each year will remain constant in perpetuity.
3. The firm is considering to issue 12% new debentures to raise Sh.50 million in order to finance an expansion programme. This will effectively change the status of the firm from unlevered to a levered firm.
4. The firm pays corporation tax at the rate of 30%.

Required:

Using Modigliani and Miller's propositions, determine:

- (i) The cost of equity before and after issue of the long-term debt. (3 marks)
- (ii) The weighted average cost of capital (WACC) before and after issue of the debt. (3 marks)
- (iii) The current market value of the firm before and after issue of the debt. (2 marks)
- (iv) Advise the management of Ziani Limited on whether to change its capital structure. (2 marks)

(Total: 20 marks)

QUESTION FIVE

- (a) Jeza Tours and Travel is a private limited company in the tourism industry. In order to improve customer service and provide the management with timely and quality information, the company is contemplating to purchase 8 micro-computers at a cost of Sh.100,000 each.

Installation cost for all the computers will amount to Sh.80,000. It is estimated that once installed, the computers will increase the company's earnings before depreciation and tax from Sh.12,000,000 to Sh.12,500,000 annually.

The computers are expected to last for 10 years after which they will be obsolete with no resale value.

The Operations Manager proposes that the computers will be useful for 15 years with no resale value.

The Marketing Manager, on the other hand argues that the company needs the computers for only 5 years, after which they can be disposed of at Sh. 50,000 each.

The probability distribution of the useful life of the computers is given as follows:

| Probability | Useful life of computers (years) |
|-------------|----------------------------------|
| 0.20 | 5 |
| 0.50 | 10 |
| 0.30 | 15 |

The company is in the 30% tax bracket.

The company's cost of capital is 24% and uses the straight-line method of depreciation.

Required:

- (i) The expected net present value of the project. (4 marks)
- (ii) The standard deviation of the expected net present value. (3 marks)
- (iii) If the net present value (NPV) of the project is less than Sh.200,000, the firm will be exposed to a financial distress. Determine the probability that the firm will avoid financial distress. (Assume normal distribution). (3 marks)

- (b) Excellent Ltd. is considering acquiring Best Ltd. a firm in the same industry in order to consolidate its market share. Best Ltd. has been less profitable, so it has paid an average of only 20% in taxes during the last several years. In addition, it has used little debt having a debt ratio of 25%. If the acquisition would be implemented, Excellent Ltd. could operate Best Ltd. as a separate, wholly owned subsidiary. This will increase Excellent Ltd.'s gearing ratio to 40%.

The following is a forecasted financial data for Best Ltd. over the next five years:

| Year | 1 | 2 | 3 | 4 | 5 |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|
| | Sh. "million" | Sh. "million" | Sh. "million" | Sh. "million" | Sh. "million" |
| Net sales | 50 | 60 | 75 | 70 | 65 |
| Operating costs | 5 | 10 | 15 | 15 | 12 |
| Selling and administration costs | 10 | 10 | 8 | 9 | 11 |
| Acceptable investment project costs | 0.5 | 0.70 | 1.60 | 1.20 | 0.20 |

Additional information:

- 1. The risk-free rate of return is 8% and debt is considered to be risk-free.
- 2. Expected return of the market portfolio is 13%.
- 3. The firm's levered equity beta after acquisition is estimated at 0.80.
- 4. After 5 years, the net cash flows of Best Ltd. shall increase at a constant rate of 6% per annum in perpetuity.
- 5. Corporation tax rate is 30%.
- 6. The firm's gross profit margin is 40%.
- 7. Best Ltd. incurs fixed financing cost of Sh.2 million per annum.
- 8. The firm's equity shares and bonds are currently trading at par.

Required:

Determine the maximum price payable to acquire Best Ltd. using the discounted free cash flow basis. (10 marks)
(Total: 20 marks)

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