Corporate Finance

Exam

College of Business and Economics (CBE)

School of Economics (SOE)

Auckland Park Campus

27 May 2019

2h00

Total Marks: 65

Assessor: Q . M. Mabe

Instructions:

- Answer all the questions
- Write neatly and legibly
- Use pen, not pencil

Question 1

1. (6 Pts) Mention and discuss three principles of finance with respect to embarking on a capital budgeting project.
2. (4 Pts). Discuss or illustrate the desirable flow of capital budgeting ideas within a firm.
3. Read the passage below and answer the questions.

   Alexander Forbes expects profit increase, drop in headline earnings

   Financial services group Alexander Forbes said on Thursday it was expecting an increase of 4% to 6% in profit before non-trading and capital items. In a statement, the group said the increase for the year ended March 31 would amount to R977m to R995m, higher than the R937m recorded in the last period. However, headline earnings per share (HEPS) were likely to decrease by 15% to 20%, from R683 million reported in the prior year. Alexander Forbes is expecting to announce its full year financial results on June 11.

The decline was attributed to the groups disposal of its 60% interest in Lane Clark and Peacock LLP, together with its subsidiaries in Ireland and the Netherlands, according to the company.Lane Clark and Peacock LLP is a financial, actuarial and business consulting firm, with a focus on pensions, investment, insurance and business analytics. Alexander Forbes further said that it reported the earnings of these entities for eight months, as well as the R788m proceeds of the sale the previous year.
A goodwill impairment of R317m was recorded as result of poor performance of the groups long-term insurance business, AF Life. "The AF Life business remains below optimal scale with growth expected to take place over the medium to long-term," the group said. It was forecast that the cost per policy was likely to remain high, affecting the profitability of the business. "In addition, a reduction in cash flows was experienced, driven by heightened claims experience in the business and industry in general," the group said. Earnings per share for the period were expected to be between 16.1 cents and 21.8 cents per share, a decrease from the prior year of 81% to 86%. Headline earnings per share for the period were likely to be between 43.1 cents and 45.7 cents per share, a decrease of between 14% and 19%.

https: //www.fin24.com /Companies /Financial-Services.

(a) (2 Pts). Argue with respect to business investment rules why Alexander Forbes disposed 60% of its interest in Lans Clark and PeacocK LLP?

(b) (2 Pts). What Should Alexander Forbes have done before embarking on a deal with Lane Clark and Peacock LLP?

(c) (2 Pts). Explain the rationale behind EPS decline subject to profit increase.

(d) (2 Pts). Is Goodwill important in capital budgeting projects ? Discuss.

(e) (2 Pts). Advise how Alexander Forbes can improve on its performance. Argue with respect to Business Investment rules.

Total Points : 20

Question 2

1. (5 Pts). Show that $P_0 = \Sigma_{t=1}^{\infty} \frac{D_1(1+g)^{t-1}}{(1+r)^t} = \frac{D_1}{r-g}$

2. Consider the cash flows given below for mutually exclusive projects, A and B.

Year	0	1	2
Project A	-R 100	R 160	0
Project B	-R 100	0	R 200

   (a) (4 Pts). If the cost of capital is 10% , what is the NPV of the investment?

   (b) (2 Pts). What is the IRR of the investment?

   (c) (2 Pt). Which investment should you accept?

3. Suppose Eskom has many publicly traded bonds.If the bonds have identical coupon rates of 9.125% but that 1 issue matures in 1 year, one in 7 years, and the third in 15 years. Assume that a coupon payment was made yesterday

   (a) (5 Pts). If the yield to maturity for all 3 bonds is 8% , what is the fair price of each bond?

   (b) (5 Pts). If the yield to maturity for all 3 bonds change instantaneously to 9% , what is the fair price of each bond?

   (c) (2 Pts). Based on the fair prices at various yields to maturity, is interest rate risk the same, higher or lower for longer vs shorter maturity bonds?

TOTAL POINTS: 25

Question 3

1. Redefine has 50 000 bonds and 2 000 000 shares outstanding. The bonds have 9% annual coupon, R 1000 face-value, R 900 market value, and 10 year maturity. The beta on the stock is 2 and its price per share is R 75. The risk-free rate is 7% , the expected market return is 12%, and the firm tax rate is 40%.
   - (a) (3 Pts). What is the after tax cost of debt financing?
   - (b) (3 Pts). What is the after tax cost of equity financing?
   - (c) (4 Pts). What is the WACC?
2. (10 Pts). Nampak is considering a new packaging product. An outlay of R6,000,000 is required for equipment to produce the new product, and additional networking capital of R500,000 is required to support production and marketing. The equipment will be depreciated on a straight line basis to a zero book-value over 8 years. Although the depreciation life is 8 years, the project is expected to have a productive life of only 6 years, and it will have the salvage value of zero at that time (the removal of scrap cost = scrap value). Revenues minus expenses for the first two years of the project will be R5,000,000 per year but, because of competition , revenues minus expenses in years 3 through to 6 will be only R3,000,000. The cost of capital of this project is 16% and the tax rate is 35%. Compute the NPV of Nampak's new packaging product.

TOTAL POINTS: 20

Formulae Sheet

1. $r = \frac{D_1}{P_0} + g$
2. $g = (1 - POR)i$
3. $r = POR(\frac{EPS_1}{P_0}) + (1 - POR)i)$
4. $WACC = \frac{E}{D+E} r_e + \frac{D}{D+E} r_d (1 - T)$
5. $WACC = r_f + \beta_A (r_{_M} - r_f)$
6. Net Cash flow for initial investment $= -I - \Delta W + S - T(S - B)$
7. $CFAT = (\Delta R - \Delta E)(1 - T) + T\Delta D$
8. $CFAT = (\Delta R - \Delta E - \Delta D)(1 - T) + \Delta D$
9. Net Salvage Value $= S - T(S - B) - (1 - T)REX + \Delta W$