

UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING AND FINANCE

EXAMINATION PAPER NOVEMBER 2015 ACADEMIC YEAR 2015/2016

PROGRAMME OF STUDY	Bachelor of Commerce
YEAR OF STUDY	Year 4 (Full Time)
TITLE OF THE PAPER	Corporate Finance II
COURSE CODE	AC 426
TIME ALLOWED	Three (3) Hours

INSTRUCTIONS

1. There are Four (4) questions, ANSWER ALL.
2. Begin the solution to each question on a new page.
3. The marks awarded for a question are indicated at the end of each question.
4. Show your necessary workings.

NOTE: You are reminded that in assessing your work, account will be taken of accuracy of the language and the general quality of expression, together with layout and presentation of your answer.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR / SUPERVISOR.

SPECIAL REQUIREMENT: FINANCIAL CALCULATOR

QUESTION ONE

- a) Link Park Corporation is comparing two different capital structures, an all-equity plan (Plan I) and a levered plan (Plan II). Under Plan I, Link Park would have 100,000 shares of stock outstanding. Under Plan II, there would be 50,000 shares of stock outstanding and E15 million in debt outstanding. The interest rate on the debt is 10 percent and there are no taxes.
- If EBIT is E2, 000,000, which plan will result in the higher EPS? **(4 marks)**
 - If EBIT is E7, 000,000, which plan will result in the higher EPS? **(4 marks)**
 - What is the break-even EBIT? **(5 marks)**
- b) The June 2013 Mexican peso futures contract has a price of \$0.08845. You believe the spot price in June will be \$0.09500.
- What speculative position would you enter into to attempt to profit from your beliefs? **(1 mark)**
 - Calculate your anticipated profits, assuming you take a position in three contracts (where MP500, 000 is the contractual size of one Mexican peso contract) **(3 marks)**
 - What is the size of your profit (loss) if the futures price is indeed an unbiased predictor of the future spot price and this price materialises. **(3 marks)**
- c) Identify **FIVE** corporate uses of derivatives **(5 marks)**

QUESTION TWO

- (a) What does Modigliani and Miller's 1958 theorem imply about a firm's optimal capital structure? **Your answer should address:**
- The Modigliani and Miller models of capital structure without corporate income taxes. **(5 marks)**
 - The Modigliani and Miller models of capital structure with corporate income taxes, including how the introduction of corporate taxes affects the firm's choice of financing. **(5 marks)**
- (b) A bond was issued 15 years ago with a par value of E100 and offering a coupon of 11 per cent annually. The bond will be redeemed in three years' time and is currently trading at E109.50. What rate of return is this bond offering investors in the secondary market? **(3 marks)**
- (c) To the issuing company, what is the major advantage of a convertible bond? **(2 Marks)**
- (d) Suppose that the market interest rate rises overnight from 3.5% to 8%. Calculate the present values of the 5.5 percent, 3-year bond and of the 5.5 percent, 30-year bond both before and after this change in interest rates. How much was the percent decline for each bond? Use your financial calculator. **(5 marks)**
- (e) You are considering buying a share of stock in a firm that has the following two possible pay-offs with the corresponding probability of occurring. The stock has a purchase price of E50.00. You forecast that there is a 40% chance that the stock will sell for E70.00 at the end

of one year. The alternative expectation is that there is a 60% chance that the stock will sell for E30.00 at the end of one year. What is the expected percentage return on this stock, and what is the return variance? (5 marks)

QUESTION THREE

- a) The Basket Weavers Company in Swaziland has 100,000 bonds outstanding that are selling at par value (E1000). Bonds with similar characteristics are yielding 7.5 percent. The company also has 1 million shares of 10.5 percent preferred stock outstanding with a par value of E 100 and 5 million shares of common stock outstanding. The preferred stock sells for E56 per share. The common stock has a beta of 1.2 and sells for E38 a share. The Swaziland Treasury bill is yielding 3 percent and the return on the market is 12 percent. The corporate tax rate is 34 percent.

Required

Calculate the weighted average cost of capital? (10 Marks)

- b) VW Woods Company a subsidiary of an international company operating in Swaziland has expected earnings before interest and taxes of E25 million. It has an unlevered cost of capital of 12%, and debt with both a book and face value of E75 million. The debt has an annual 9% percent coupon. The tax rate is 35 percent.

Required

- i. What is the value of the unleveraged firm? (4 marks)
- ii. What is the value of the leveraged firm? (4 marks)
- iii. What is the value of equity? (2 marks)
- iv. What is the effect of financial leverage on both Earnings Per Share (EPS) and Return On Equity (ROE). (5 marks)

QUESTION FOUR

- a) On 12 November 2012 a UK exporter sold goods to a customer in France invoiced at €5,000,000. Payment was due three months later. Spot rate of exchange was at €1.17871£.
- i. If the pound strengthened against the euro and the rate was then €1.40/£, did the exporter make a profit or loss from this forward contract? (2.5 marks)
 - ii. If sterling weakens to €1.1 0/£, did the exporter make a profit or loss from this forward contract? (2.5 marks)
- b) A UK company is exporting £1 million of goods to a Canadian firm when the spot rate of exchange is C\$1.60/£. It Invoices the customer in the home currency. The three-month forward rate is C\$1.65/£. The Canadian firm is given three months to pay. Three months later

Scenario 1 : The dollar has strengthened against the pound to C\$1.5/£.

Scenario 2 : Now assume that the dollar has weakened against sterling to C\$1.8/£.

Calculate the exporter's profit/loss under each scenario if it uses a forward contract to hedge its revenue. (10 marks)

- c) Galp Energia is concerned about potential increases in the price of heavy crude oil which is one of its major inputs from its supplier, Onnex Inc. To protect itself against such increases Galp buys 6-month call options to purchase 1000 barrels of crude oil at an exercise price of \$40. These options cost \$1 per barrel.
- i. If the price of crude is \$35 when the options expire, calculate the profit/loss on options and whether Galp should exercise it or not. **(5 marks)**
 - ii. A speculator has £1,000,000. Strike price of the call option is \$1.79/£, option premium is 0.025/£. On exercise date, the spot price is \$1.76/£. Calculate the profit/loss on option and whether to exercise it or not. **(5 marks) Supp 2014**

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