

UNIVERSITY OF SWAZILAND
DEPARTMENT OF ACCOUNTING AND FINANCE
MAIN EXAMINATION QUESTION PAPER
MAY 2013

DEGREE : **BACHELOR OF COMMERCE**

TITLE OF PAPER : **CORPORATE FINANCE II**

COURSE CODE : **AC 503 / IDE AC 503**

TIME ALLOWED : **THREE (3) HOURS**

TOTAL MARKS : **100**

INSTRUCTIONS

1. **TOTAL NUMBER OF QUESTIONS**
ON THIS PAPER: FOUR (4)
2. **ANSWER ALL QUESTIONS**
3. **WHERE APPLICABLE ALL WORKINGS**
SHOULD BE SHOWN

NOTE: **YOU ARE REMINDED THAT IN ASSESSING YOUR**
WORK, ACCOUNT WILL BE TAKEN OF
ACCURACY, LANGUAGE, THE GENERAL
QUALITY OF EXPRESSION, TOGETHER WITH
THE LAYOUT AND PRESENTATION OF YOUR
FINAL ANSWER.

SPECIAL REQUIREMENT: **FINANCIAL CALCULATOR**

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

QUESTION 1

(i) In the 1st quarter of 2012 Nolwazi Incorporated paid a regular quarterly dividend of E0.34 a share.

(a) Match each of the following sets of dates:

- | | | |
|-----------------------|------------------------------|------------|
| (A1) 27 February 2012 | (B1) Record date | |
| (A2) 6 March 2012 | (B2) Payment date | |
| (A3) 7 March 2012 | (B3) Ex-dividend date | |
| (A4) 9 March 2012 | (B4) Last with-dividend date | |
| (A5) 2 April 2012 | (B5) Declaration date | (2½ marks) |

(b) On one of these dates the stock price was likely to fall by about the value of the dividend. Which date is it and why? (1 mark)

(c) Nolwazi's stock price at the end of February was E80.20. What was the dividend yield? (1 mark)

(d) If earnings per share for 2012 were E3.20, what was the percentage payout rate? (1 mark)

(e) Suppose that in 2012 the company paid a 10 percent stock dividend. What was the expected fall in price? (2 marks)

(ii) Here were key financial data for House of Dlongolo, Incorporated:

Earnings per share for 2011	E5.50
Number of shares outstanding	40 million
Target payout ratio	50%
Planned dividend per share	E2.75
Stock price, year-end 2011	E130

House of Dlongolo planned to pay the entire dividend early in January 2012. All corporate and personal taxes were repealed in 2008.

(a) Other things being equal, what was House of Dlongolo's stock price after the planned dividend payout? (½ mark)

(b) Suppose the company cancelled the dividend and announced that it will use the money saved to repurchase shares. What happened to the stock price on the announcement date? (½ mark)

Assume that investors learn nothing about the company's prospects from the announcement. How many shares did the company need to repurchase? (1 mark)

(c) Suppose the company increased dividends to E5.50 per share and then issued new shares to recoup the extra cash paid out as dividends. What happened to the with- and ex-dividend share prices? (1 mark)

How many shares needed to be issued? Again, assume investors learn nothing from the announcement about House of Dlongolo's prospects. (1½ marks)

(d) Calculate the weighted-average cost of capital (WACC) for Nomcebo Junkyards of Swaziland, using the following information:

- Debt : E75,000,000 book value outstanding. The debt is trading at 90 percent of par. The yield to maturity is 9 percent.
- Equity : 2,500,000 shares selling at E42 per share. Assume the expected rate of return on Nomcebo's stock is 18 percent.
- Taxes : Nomcebo's marginal tax rate is $T_c = 0.35$. (2 marks)

For what type of project would Nomcebo's WACC be the right discount rate? (1 mark)

Suppose Nomcebo Junkyards decides to move to a more conservative debt policy. A year later its debt ratio is down 15 percent ($D/V = 0.15$). The interest rate has dropped to 8.6 percent. Recalculate Nomcebo's WACC under these new assumptions. The company's business risk, opportunity cost of capital, and tax rate have not changed. (3 marks)

(iii) (a) The Swaziland Basket Weavers Company has 100,000 bonds outstanding that are selling at par value. Bonds with similar characteristics are yielding 7.5 percent. The company also has 1 million shares of 10.5 percent preferred stock outstanding 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. Calculate Basket Weaver's weighted average cost of capital. (5 marks)

(b) Mathokoza Sibandze Company has a capital structure which is based on 30 percent debt, 10 percent preferred stock, and 60 percent common stock. The pre-tax cost of debt is 8 percent, the cost of preferred stock is 9 percent, and the cost of common stock is 11 percent. The company's

tax rate is 34 percent. The company is considering a project that is equally as risky as the overall firm. This project has initial costs of E250,000 and cash inflows of E94,000 a year for three years. Determine the projected net present value of this project. (5 marks)

(Question 1 - Total marks : 28)

QUESTION 2

(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 €1.1787/£. 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? (3 marks)

If sterling weakens to €1.10/£, did the exporter make a profit or loss from this forward contract? (2 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. (5 marks)

(c) A US importer company wants to hedge its £1 million payable using a currency option. The strike price is \$1.90/£ and option premium of \$0.02/£. On exercise date, the spot price is \$1.85/£. Calculate the profit/loss on the option and whether to exercise it not. (5 marks)

(d) Use the information below to execute covered interest arbitrage (CIA). Assume that the arbitrageur could borrow \$1 million in the USA or £500,000 in UK.

Spot = \$2.00/£
 F_{60} = \$1.995/£
 r_{us} = 8%
 r_{uk} = 12%

(i) State which currency will be borrowed and the reason. (2 marks)

(ii) Compute the profits from arbitrage explaining the different stages. (3 marks)

(iii) Compute the rate of return on the investment. (2 marks)

(Question 2 - Total marks : 22)

QUESTION 3

(a) Maziya Associated paid E1.65 in dividends on its equity shares last year. Dividends are expected to grow at a 12% annual rate for an indefinite number of years. If Maziya Associated's current market price is E32.50;

(i) What would be the expected rate of return on the equity share? (2 marks)

(ii) If Mlondi Zishwili's required rate of return is 17.50%, calculate the value of the equity share for Mlondi. (2 marks)

(iii) Should he make the investment? (1 mark)

(b) Nompumelelo Mavuso Consolidated has a beta of 1.50. The risk-free rate is 8% and the expected return on the market portfolio is 15%. The company presently pays a dividend of E2.50 per share and investors expect it to experience a growth in dividend of 12% per annum for many years to come.

- (i) Compute the required rate of return on the equity according to the CAPM. (2 ½ marks)
- (ii) Calculate the present market price of the equity share, assuming the computed required rate? (2 ½ marks)

(c) Sesimla Breweries is planning to market unleaded beer. To finance the venture it proposes to make a rights issue at E10 of one new share for each two shares held. (The company currently has outstanding 100,000 shares priced at E40 a share). Assuming that the new money is invested to earn a fair return, give values for the following:

- (i) Number of new shares.
- (ii) Amount of new investment.
- (iii) Total value of company after issue.
- (iv) Total number of shares after issue.
- (v) Stock price after the issue.
- (vi) Price of the right to buy one new share. (12 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. (6 marks)

(e) In Figure 2.4 look at the Treasury bond maturing in February 2015.

- (i) How much would you have to pay to purchase one of these bonds?
- (ii) If you already owned the bond, how much would a bond dealer pay you for it?
- (iii) By how much did the price change from the previous day?
- (iv) What annual interest payment does the bond make?
- (v) What is the bond's yield to maturity? (5 marks)

(Question 3 - Total marks : 33)

QUESTION 4

(i) Questions (a) and (b) are based on Table 23-2. Use it to answer these questions:

- (a) What will be the proceeds and net profits to an investor who purchased the September-expiration Google call options with exercise price of \$180 if the stock price at expiration is \$150? What if the stock price at expiration is \$230? (3 marks)
- (b) Now answer part (a) for an investor who purchased a September-expiration Google put option with exercise price of \$180. (3 marks)

(c) The June 2013 Mexican peso futures contract has a price of \$0.08845. You believe the spot price in June will be \$0.09500.

(i) What speculative position would you enter into to attempt to profit from your beliefs? **(1 mark)**

(ii) Calculate your anticipated profits, assuming you take a position in three contracts (where MP500,000 is the contractual size of one Mexican peso contract). **(2 marks)**

(iii) 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. **(1 mark)**

(d) Maziya Corporation is a Swazi firm processing dried fruits. Its export business has risen to the point that it is considering establishing a small processing operation in Botswana.

Suppose Maziya's Botswana facility is expected to generate the following cash flows in Botswana pulas (P):

Year:	0	1	2	3	4	5
Cash flows (millions of pulas)	-15.2	4.0	5.0	6.0	7.0	8.0

The interest rate in Swaziland is 6 percent. Maziya's financial manager estimates that the company requires an additional expected return of 12 percent to compensate for the risk of the project.

The financial manager looks in the newspaper and finds that the current exchange rate is 0.75 pula to the lilangeni ($s_{P/L} = 0.75$), while the interest rate is 6 percent in Swaziland ($r_L = 0.06$) and 4 percent in Botswana ($r_P = 0.04$).

(i) Calculate the NPV of Maziya Corporation's project. **(6 marks)**

(ii) Should they pursue the project? **(½ mark)**

(iii) Would you be able to buy more or less pulas in the forward market than in the spot market? **(½ mark)**

(Question 4 = Total marks : 17)

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End of Paper
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TREASURY BONDS, NOTES & BILLS

Explanatory Notes

Representative Over-the-Counter quotation based on transactions of \$1 million or more. Treasury bond, note and bill quotes are as of mid-afternoon. Colons in bid-and-asked quotes represent 32nds; 101:01 means 101 1/32. Net changes in 32nds. n-Treasury note. i-Inflation-Indexed Issue. Treasury bill quotes in hundredths, quoted on terms of a rate of discount. Days to maturity calculated from settlement date. All yields are to maturity and based on the asked quote. Latest 13-week and 26-week bills are boldfaced. For bonds callable prior to maturity, yields are computed to the earliest call date for issues quoted above par and to the maturity date for issues below par. *When issued.

Source: eSpeed/Cantor Fitzgerald

RATE	MATURITY MO/YR	BID	ASKED	CHG	ASK YLD	RATE	MATURITY MO/YR	BID	ASKED	CHG	ASK YLD
Government Bonds & Notes											
3.250	May 04n	100:00	100:01	-1	0.18	3.875	Feb 13n	94:21	94:22	3	4.62
2.875	Jun 04n	100:05	100:06	-1	0.75	3.625	May 13n	92:25	92:26	3	4.61
2.250	Jul 04n	100:06	100:07	-1	0.95	1.875	Jul 13i	99:09	99:10	-4	1.96
2.125	Aug 04n	100:08	100:09	-1	0.99	4.250	Aug 13n	96:19	96:20	2	4.70
6.000	Aug 04n	101:03	101:04	...	0.92	12.000	Aug 13	132:16	132:17	3	3.62
7.250	Aug 04n	101:12	101:13	...	0.90	4.250	Nov 13n	96:11	96:12	4	4.73
13.750	Aug 04	102:25	102:26	-1	0.98	2.000	Jan 14i	100:00	100:00	-6	2.00
1.875	Sep 04n	100:07	100:08	-1	1.10	4.000	Feb 14n	94:16	94:17	3	4.70
2.125	Oct 04n	100:10	100:11	...	1.28	4.750	May 14n	100:04	100:05	2	4.73
5.875	Nov 04n	102:02	102:03	-1	1.36	13.250	May 14	142:05	142:06	5	3.84
7.875	Nov 04n	103:00	103:01	-1	1.35	12.500	Aug 14	140:03	140:04	5	3.92
11.625	Nov 04	104:25	104:26	...	1.32	11.750	Nov 14	137:21	137:22	5	4.01
						11.250	Feb 15	153:08	153:09	4	4.82
						10.625	Aug 15	149:02	149:03	5	4.89

figure 2.4

Listing of Treasury Issues
 Source: From *The Wall Street Journal*, May 26, 2004.
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TABLE 23-2 Examples of options on Google shares in March 2005, when Google stock was selling for \$180

Expiration Date	Exercise Price	Call Price	Put Price
September 2005	\$160	\$32.00	\$9.60
	180	19.60	17.90
	200	11.20	29.10
January 2006	160	37.20	14.10
	180	27.00	23.30
	200	18.00	33.60
January 2007	160	51.10	21.50
	180	41.20	30.30
	200	32.00	41.60

Source: finance.yahoo.com.

² The option seller is known as the *writer*.