

UNIVERSITY OF SWAZILAND
DEPARTMENT OF ACCOUNTING AND FINANCE
SUPPLEMENTARY EXAMINATION QUESTION PAPER

JULY 2013

PROGRAMME OF STUDY : BACHELOR OF COMMERCE

YEAR OF STUDY : YEAR 5 (F/T) / LEVEL 6 (IDE)

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) Nondumiso Oil has 5,000 shares outstanding and the stock price is E140. The company is expected to pay a dividend of E20 per share next year and thereafter the dividend is expected to grow indefinitely by 5 percent a year. The President, Nondumiso Mdluli, now makes a surprise announcement: She says that the company will henceforth distribute half the cash in the form of dividends and the remainder will be used to repurchase stock.

Required:

(a) Determine the total value of the company before and after the announcement. What is the value of one share? **(2 marks)**

(b) Calculate the expected stream of dividends per share for an investor who plans to retain her shares rather than sell them back to the company? **(5 marks)**

(ii) Celucolo Spot Removers is entirely equity-financed. Although it expects to have an income of E1,500 a year in perpetuity, this income is not certain. This table shows the return to the stockholder under different assumptions about operating income. We assume no taxes.

Data				
Number of shares		1,000		
Price per share		E10		
Market value of shares		E10,000		
			Outcomes	
Operating income (E)	500	1,000	1,500	2,000
Earnings per share (E)	0.50	1.00	1.50	2.00
Return on shares (%)	5	10	15	20
			Expected outcome	

Suppose that Celucolo's investment bankers have informed him that since the new issue of debt is risky, debtholders will demand a return of 12.5 percent, which is 2.5 percent above the risk-free interest rate.

Required:

(a) What are r_A and r_E ? **(3 marks)**

(b) Suppose that the beta of the unlevered stock was 0.6. What will be β_A , β_E , and β_D after the change to the capital structure? **(5 marks)**

(c) Assuming that the capital asset pricing model is correct, what is the expected return on the market? **(1 mark)**

(d) Whispering Goboza Incorporated is all-equity financed. The expected rate of return on the company's shares is 12 percent.

(i) What is the opportunity cost of capital for an average-risk Whispering Goboza investment?

- (ii) Suppose the company issues debt, repurchases shares, and moves to a 30 percent debt-to-value ratio ($D/V = 0.30$). What will the company's WACC be at the new capital structure? The borrowing rate is 7.5 percent and the tax rate is 35 percent. **(4 marks)**
- (e) The WACC formula seems to imply that debt is "cheaper" than equity, that is, that a firm with more debt could use a lower discount rate. Does this make sense? Explain briefly. **(2 marks)**
- (f) The Lucky Motsa Company has a capital structure which is based on 20 percent debt, 35 percent preferred stock, and 45 percent common stock. The floatation costs are 9 percent for common stock, 10 percent for preferred stock, and 5 percent for debt. The corporate tax rate is 34 percent. What is the weighted average floatation cost? **(3 marks)**

(Question 1 - Total marks : 25)

QUESTION 2

- (i) (a) What is a forward contract? **(2 marks)**

(b) The Hlobsele Lukhele Corporation will receive FF50 million in 90 days. The firm has two hedging alternatives: (a) the money market and (b) the forward market. The following market information is available to the firm:

	Bid	Ask
French franc spot	\$0.200	\$0.203
90-day forward	\$0.205	\$0.210

90-Day Interest Rate	Borrowing	Investing
United States	3.2%	3.1%
France	2.9%	2.8%

In addition, it costs the firm \$100 (FF500) per transfer of funds from the United States to France (and vice versa). Furthermore, if the firm invests in either country, it will incur brokerage fees of \$800 in the United States or FF4,000 in France.

- Which hedging alternative would you recommend? **(5 marks)**

- (c) What is a currency option? Explain the two types of currency options. (4 marks)
- (d) A US exporter company wants to hedge its £1 million payable using a currency option. The strike price is \$1.80/£ and option premium of \$0.02/£. On exercise date, the spot price is \$1.85/£. Calculate the profit/loss on option and whether to exercise it not. (5 marks)

(e) 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.

$$\begin{aligned} \text{Spot} &= \$2.00/\text{£} \\ F_{60} &= \$2.03/\text{£} \\ r_{\text{us}} &= 10\% \\ r_{\text{uk}} &= 10\% \end{aligned}$$

- (i) State which currency will be borrowed and the reason. (2 marks)
- (ii) Compute the profits from arbitrage explaining the different stages. (4 marks)
- (iii) Compute the rate of return on the investment (3 marks)

Question 2 - Total marks : 25)

QUESTION 3

Questions (a) – (c) are based on Table 14.1. Use it to answer these questions:

- (a) (i) Suppose you buy 50 January 30 call contracts, how much do these contracts cost you? (3 marks)
- (ii) Suppose AAPL has risen to \$50 per share, would you exercise the option? (2 marks)
- (i) Is the call option in the money or out of the money? (2 marks)
- (ii) What is the value of your options? (2 marks)
- (iii) How much is your net profit/loss? (2 marks)
- (b) (i) Suppose you want the right to sell 100 shares of AAPL for \$30 anytime up until the third Friday in July. What should you tell your broker? (2 marks)
- (ii) How much will it cost you? (2 marks)
- (c) (i) Suppose you buy 10 AAPL January 32.50 put contracts. How much does this cost you (ignoring commissions)? (2 marks)
- (ii) Just before the option expires, AAPL is selling for \$22.50 per share. Is this good news or bad news? (2 marks)
- (iii) What is your net profit? (2 marks)
- (d) In Figure 2.4 look at the Treasury bond maturing in February 2014.
- (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 : 26)

QUESTION 4

Use Figure 22.1 to answer the following question:

(i) If you have \$100, how many euros can you get? (2 marks)

(ii) If you have five million euros, how many dollars do you have? (2 marks)

(iii) Which is worth more: a New Zealand dollar or a Singapore dollar? (2 marks)

(iv) Which is worth more: a Mexican peso or a Chilean peso? (2 marks)

(v) How many Mexican pesos can you get for a euro? What do you call this rate? (3 marks)

(vi) Which would you rather have: \$100 or £100? Why? (2 marks)

(vii) Which would you rather have: 100 Swiss francs (SF) or £100? Why? (2 marks)

(viii) What is the cross-rate for Swiss francs in terms of British pounds? For British pounds in terms of Swiss francs? (3 marks)

(ix) What is the six-month forward rate for the Japanese yen in yen per U.S. dollar? Is the yen selling at a premium or a discount? Explain. (3 marks)

(x) What is the three-month forward rate for Canadian dollars in U.S. dollars per Canadian dollar? Is the Canadian dollar selling at a premium or a discount? Explain. (3marks)

(Question 4 - Total marks : 24)

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End of Paper
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Apple (AAPL)

Underlying stock price: 30.69

<< TABLE 14.1

A Sample Wall Street
Journal Option
Quotation

Expiration	Strike	Call			Put		
		Last	Volume	Open Interest	Last	Volume	Open Interest
Oct	22.50	...	...	286	0.30	39	2790
Jan	22.50			3497	0.65	2	2031
Jun	25.00	5.90	30	1300	...	...	5101
Jul	25.00	5.90	208	9465	0.10	465	9484
Oct	25.00	6.60	27	1195	0.65	12	3218
Jan	25.00	7.10	103	18045	1.15	66	11359
Jun	27.50	3.21	68	10283	...	...	3618
Jul	27.50	3.80	167	17887	0.30	2787	9468
Oct	27.50	4.70	39	5104	1.25	10	3908
Jan	27.50	5.70	197	7478	1.80	10	3162
Jun	30.00	0.85	1549	7662	0.15	1406	2417
Jul	30.00	1.85	860	34929	1.05	2613	8318
Oct	30.00	3.30	367	8898	2.20	391	2023
Jan	30.00	4.00	391	31627	2.75	187	2032
Jun	32.50	0.05	2	2641	1.55	5	339
Jul	32.50	0.80	141	34663	2.35	335	1413
Oct	32.50	2.00	60	4502	3.40	10	344
Jan	32.50	2.90	5	4069	4.00	3	73
Jul	35.00	0.30	227	182	...	...	...
Oct	35.00	1.05	34	10717	5.00	20	451
Jan	35.00	1.85	100	10693	...	...	292

Underlying stock price represents listed exchange price only. It may not match the composite closing price.

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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
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<< FIGURE 22.1
Exchange Rate Quotations

	Late New York Trading Monday, June 28, 2004						
	Dollar	Euro	Pound	SFranc	Peso	Yen	Cdn/Dlr
Canada	1.3468	1.6412	2.4648	1.0785	11.727	.01248	...
Japan	107.90	131.48	197.46	86.405	9.395	...	80.114
Mexico	11.4850	13.9956	21.019	9.1972	...	.10644	8.5276
Switzerland	1.2488	1.5217	2.2853	...	.10873	.01157	.9272
U.K.	.54640	.6659	...	.4376	.04758	.00506	.40572
Euro	.82060	...	1.5018	.65715	.07145	.00761	.60931
U.S.	...	1.2186	1.8301	.80080	.08707	.00927	.74250

Source: Reuters

Exchange Rates June 28, 2004

The foreign exchange mid-range rates below apply to trading among banks in amounts of \$1 million and more, as quoted at 4 p.m. Eastern time by Reuters and other sources. Retail transactions provide fewer units of foreign currency per dollar.

Country	U.S. \$ EQUIVALENT		CURRENCY PER U.S. \$	
	Mon	Fri	Mon	Fri
Argentina (Peso)-y	.3375	.3384	2.9620	2.9551
Australia (Dollar)	.7062	7.001	1.4284	1.4284
Bahrain (Dinar)	2.6525	2.6526	.3770	.3770
Brazil (Real)	.3198	.3215	3.1120	3.1104
Canada (Dollar)	.7425	.7405	1.3468	1.3504
1-month forward	.7420	.7401	1.3477	1.3512
3-months forward	.7415	.7394	1.3486	1.3524
6-months forward	.7409	.7389	1.3497	1.3534
Chile (Peso)	.001577	.001579	634.12	633.31
China (Renminbi)	.1208	.1208	8.2781	8.2781
Colombia (Peso)	.0003707	.0003713	2697.60	2693.24
Czech Rep. (Koruna)				
Commercial rate	.03818	.03833	26.192	26.089
Denmark (Krone)	.1640	.1636	6.0976	6.1125
Ecuador (US Dollar)	1.0000	1.0000	1.0000	1.0000
Egypt (Pound)-y	.1613	.1614	6.2000	6.1950
Hong Kong (Dollar)	.1282	.1283	7.8003	7.7942
Hungary (Forint)	.004813	.004790	207.77	208.77
India (Rupee)	.02181	.02184	45.851	45.788
Indonesia (Rupiah)	.0001061	.0001061	9425	9425
Israel (Shekel)	.2224	.2222	4.4964	4.5005
Japan (Dollar)	.009268	.009289	107.65	107.65
1-month forward	.009279	.009300	107.77	107.53
3-months forward	.009306	.009327	107.46	107.22
6-months forward	.009358	.009377	106.86	106.64
Jordan (Dinar)	1.4104	1.4104	.7090	.7090
Kuwait (Dinar)	3.3920	3.3936	.2948	.2947
Lebanon (Pound)	.0006603	.0006603	1514.46	1514.46
Malaysia (Ringgit)-b	.2632	.2632	3.7994	3.7994
Malta (Lira)	2.8624	2.8563	.3494	.3501
Mexico (Peso)				
Floating rate	.0871	.0882	11.4850	11.3366

Country	U.S. \$ EQUIVALENT		CURRENCY PER U.S. \$	
	Mon	Fri	Mon	Fri
New Zealand (Dollar)	.6414	.6362	1.5591	1.5718
Norway (Krone)	.1462	.1464	6.8399	6.8306
Pakistan (Rupee)	.01743	.01726	57.372	57.937
Peru (new Sol)	2.881	2.882	3.4710	3.4698
Philippines (Peso)	.01781	.01783	56.148	56.085
Poland (Zloty)	.2686	.2647	3.7230	3.7495
Russia (Ruble)-a	.03445	.03446	29.028	29.019
Saudi Arabia (Riyal)	.2666	.2667	3.7509	3.7495
Singapore (Dollar)	.5842	.5854	1.7117	1.7082
Slovak Rep. (Koruna)	.03054	.03048	32.744	32.808
South Africa (Rand)	.1622	.1586	6.1652	6.3052
South Korea (Won)	.0008677	.0008705	1152.47	1148.77
Sweden (Krona)	.1334	.1326	7.4963	7.5415
Switzerland (Franc)	.8008	.8004	1.2488	1.2494
1-month forward	.8014	.8010	1.2478	1.2484
3-months forward	.8031	.8026	1.2452	1.2460
6-months forward	.8056	.8051	1.2413	1.2421
Taiwan (Dollar)	.02976	.02980	33.602	33.557
Thailand (Baht)	.02446	.02449	40.883	40.833
Turkey (Lira)	.0000067	.0000067	1492537	1492537
United Arab (Dirham)	1.8252	1.8255	5479	5478
1-month forward	1.8252	1.8205	5479	5493
3-months forward	1.8153	1.8106	5509	5523
6-months forward	1.8072	1.7975	5549	5563
United Arab (Dirham)	.2723	.2722	3.6724	3.6738
Uruguay (Peso)				
Financial	.03360	.03370	29.762	29.674
Venezuela (Bolívar)	.000521	.000521	1919.39	1919.39
SDR	1.4695	1.4676	.6805	.6814
Yemen (Rial)	1.2159	1.2159	8206	8224

Special Drawing Rights (SDR) are based on exchange rates for the U.S., British, and Japanese currencies. Source: International Monetary Fund.

a-Russian Central Bank rate. b-Government rate. y-Floating rate.

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