

KASNEB

CIFA PART II SECTION 3

CORPORATE FINANCE

WEDNESDAY: 25 May 2016.

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) Summarise three disadvantages of common models used for predicting corporate failure. (3 marks)
- (b) (i) Propose three reasons why a company could participate in a share repurchase exercise. (3 marks)
- (ii) Describe three methods that could be used by companies to repurchase shares. (3 marks)
- (c) EAPL Limited is considering raising money for repurchasing 200,000 shares. The company's outstanding shares before the share repurchase exercise are 6.2 million and the respective earnings per share (EPS) is Sh.8.00. The market price per share (MPS) at the time of repurchase is Sh.100.00. The prevailing after-tax cost of borrowing is 12%.

Required:

The earnings per share (EPS) after the share repurchase. (4 marks)

- (d) The dividend policy of Clyton Ltd. can be represented by a gradual adjustment to a target dividend payout ratio. The earnings per share (EPS) and dividend per share (DPS) of the company for the previous financial year were Sh.9.00 and Sh.1.80 respectively. It is estimated that the EPS will be Sh.12.00 for the current year. Clyton Ltd. has a 20% target dividend payout ratio and uses a 10-year period to adjust its dividend.

Required:

The expected dividend per share for the current year. (3 marks)

- (e) An investment analyst gathered the following information about a private company and its publicly traded competitor:

Comparable companies	Tax rate (%)	Debit/equity	Equity beta
Private company	27	1.00	N/A
Public company	30	0.80	1.86

Note: N/A means "not applicable".

Required:

The estimated equity beta for the private company using the pure-play method. (4 marks)

(Total: 20 marks)

QUESTION TWO

- (a) Highlight five benefits that could accrue to a corporation that continuously measures the performance of its managers. (5 marks)
- (b) Beyond the pure comparison of the capital structures, it is equally or even more imperative to identify and understand the country-specific factors that explain the cross-country differences.

Required:

In relation to the above statement, examine three factors that might be used to explain most capital structure differences in an international comparison. (3 marks)

- (c) Citam Investment Group (CIG) owns a significant shareholding in Millennium Bank Ltd. (MBL). MBL contemplates increasing the proportion of debt in their company's capital structure. Raichura Ranchu, an investment and financial analyst who consults for CIG, is concerned that any changes in MBL's capital structure would negatively affect the value of CIG's investment.

Raichura has gathered the following information regarding MBL to evaluate the potential impact of such a capital structure change on CIG's investment:

Current selected financial information for MBL	
Yield to maturity on debt	16%
Market value of debt	Sh.200 million
Number of shares	20 million
Current market price per share (MPS)	Sh.60.00
Cost of capital (if the firm is all equity financed)	11.2%
Marginal tax rate	30%

It is expected that an increase in MBL's financial leverage would lead to an increase in its cost of debt and equity. According to previous statistics of firms in MBL's industry, Raichura estimates the cost of debt and the cost of equity at various debt-to-total capital ratios to be as shown in the table below:

Estimates of MBL's before-tax costs of debt and equity		
Debt-to-total capital ratio (%)	Cost of debt (%)	Cost of equity
21	8.9	13.6
32	9.5	14.1
43	10.4	15.3
54	11.5	17.2

Required:

- (i) The current capital structure of MBL. (3 marks)
 - (ii) The current after-tax cost of debt and cost of equity for MBL. (4 marks)
 - (iii) Debt-to-total capital ratio that would minimise MBL's weighted average cost of capital (WACC). (5 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) Interpret the following terms as used in Islamic finance:
 - (i) Murabaha. (1 mark)
 - (ii) Ijara. (1 mark)
 - (iii) Muduraba. (1 mark)
 - (iv) Musharaka. (1 mark)
 - (v) Sukuk. (1 mark)
- (b) Outline three objectives of short-term borrowing strategy. (3 marks)
- (c) Kagio Traders Ltd. (KTL) is a small company with high prospects of growth. In the last one year, KTL has experienced problems in developing a sound short-term borrowing strategy. In relation to this, KTL has recently consulted Samson Mwashumba, an investment and financial analyst to help the company in developing the most cost effective form of short-term borrowing strategy. Mwashumba's initial task is to evaluate three possible means of borrowing Sh.2 million for one month as indicated below:
 1. Drawing down on a line of credit with an interest rate of 14.4% per annum and a 0.5% per annum commitment fee on the full amount with no compensating balances.
 2. A bankers acceptance at an interest rate of 14.2% per annum, an all inclusive rate.
 3. A commercial paper at an interest rate of 13.8% per annum with a dealer's commission of 0.25% and a backup line cost of a 0.33% per annum, both of which would be assessed on the Sh.2 million commercial paper issued.

Required:

The form of borrowing that would result in the lowest cost of credit.

(12 marks)
(Total: 20 marks)

QUESTION FOUR

- (a) Evaluate three disadvantages of using comparable company analysis approach of valuing firms undertaking mergers and acquisitions. (3 marks)
- (b) Kimbo Ltd. is planning to acquire Kasuku Ltd. As a corporate financial analyst, you have been tasked by Kimbo Ltd. to estimate a fair acquisition price for Kasuku Ltd.

Additional information:

- Kasuku Ltd. has 20,000,000 outstanding shares and no debt. It is estimated that the post-merger free cash flows (FCF) from Kasuku Ltd. would be Sh.30 million, Sh.34 million, Sh.40 million and Sh.46 million at the end of year 1, year 2, year 3 and year 4 respectively.
- After year 4, it is projected that the free cash flow would grow at a constant rate of 7.5% annually. The appropriate discount rate is estimated to be 12%. It is also estimated that after four years, Kasuku Ltd. would be worth 25 times its free cash flow at the end of year 4.
- Three companies, Joma Ltd., Elianto Ltd. and Golden Ltd. are comparable to Kasuku Ltd. Three recent takeover transactions similar to the takeover of Kasuku Ltd. have been identified, namely Peto Ltd., Diso Ltd. and Kero Ltd. and it is further believed that price-to-earnings, price-to-sales, and price-to-book value price multiples of these companies could be used to estimate the value of Kasuku Ltd.

The relevant data for the three comparable companies together with that of Kasuku Ltd. are as follows:

Valuation variables	Joma Ltd. Sh.	Elianto Ltd. Sh.	Golden Ltd. Sh.	Kasuku Ltd. Sh.
Market price per share	45.00	24.00	52.00	32.00
Earnings per share	4.02	2.26	3.04	2.86
Sales per share	21.32	15.44	19.30	18.36
Book value per share	16.32	8.36	12.50	11.02

In addition, the relevant data for the three recently acquired companies is as shown in the table below:

Valuation variables	Peto Ltd. Sh.	Diso Ltd. Sh.	Kero Ltd. Sh.
Pre-takeover share price	25.80	44.40	30.00
Acquisition share price	29.00	53.00	35.10
Earnings per share (EPS)	2.80	3.20	2.70
Sales per share	11.06	21.82	30.86
Book value per share	9.38	11.28	10.34

Required:

- The present value per share of Kasuku Ltd. using the discounted cash flow approach if the terminal value of Kasuku Ltd. is based on using the constant growth model to determine terminal value. (3 marks)
- The value per share of Kasuku Ltd. using the discounted cash flow approach if the terminal value of Kasuku Ltd. is based on using the cash flow multiple method to determine terminal value. (3 marks)
- The average share price of Kasuku Ltd. for the three relative valuation ratios, given that it is traded at the mean of the three valuations. (4 marks)
- Estimate the fair acquisition price of Kasuku Ltd. based on the comparable company approach, taking into account the mean takeover premium on recent comparable takeovers. (3 marks)
- The fair acquisition share price of Kasuku Ltd. using the comparable transaction approach. (4 marks)

(Total: 20 marks)

QUESTION FIVE

- (a) Although the principles of capital budgeting might seem straight forward, applying the principles to real world investment opportunities could be challenging.

Required:

Discuss three mistakes that corporate financial analysts might make when analysing capital budgeting projects. (3 marks)

- (b) Although the capital budgeting model is widely employed in measuring income and valuing projects, financial analysts also use other procedures to divide up the cash flows from a company or project and then value them using discounted cash flow methods.

Required:

Describe the following models for measuring income and valuing assets:

- (i) Economic profit model. (2 marks)
 - (ii) Residual income model. (2 marks)
 - (iii) Claims valuation model. (2 marks)
- (c) Edward Mutemi, an investment and financial analyst working with Fiduciary Financial Services (FFS) is evaluating a project for one of his clients operating in the electronics sector, Fantec Solutions Ltd.

The following information relates to the project:

- Fixed capital outlay is Sh.3 billion.
- Investment in net working capital is Sh.0.8 billion.
- The project is expected to have a useful life of 12 years.

Additional information:

1. Fantec Solutions Ltd. adopts a straight-line depreciation method over a 6-year period with zero salvage value.
2. Additional annual revenues are expected to be Sh.0.2 billion.
3. Annual cash operating expenses will be reduced by Sh.0.5 billion.
4. The capital equipment will be sold for Sh.1.00 billion in year 12.
5. The corporate tax rate is 30%.
6. The project required rate of return is 10%.

Required:

- (i) The annual after-tax operating cash flows for year 1 to year 6. (2 marks)
- (ii) The annual after-tax operating cash flows for year 7 to year 12. (1 mark)
- (iii) The initial project outlay. (2 marks)
- (iv) The terminal year after-tax non-operating cash flow. (3 marks)
- (v) The net present value of the project. (3 marks)

(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4655	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0025	.0013	.0007	.0002	.0001		
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001				
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001						

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,n} = \sum_{t=1}^n \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of Payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250

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