

KASNEB

CIFA PART II SECTION 4

EQUITY INVESTMENTS ANALYSIS

THURSDAY: 26 November 2015.

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) Evaluate four elements that the financial analyst should consider when performing an industry analysis of a given company. (8 marks)
- (b) Pebbley Limited has a return on equity (ROE) of 6.4%. Its projected earnings per share (EPS) and dividend per share (DPS) are Sh.8 and Sh.3 respectively. The discount rate is assumed to be 8%.
- Required:**
- (i) Retention ratio. (2 marks)
- (ii) Sustainable growth rate. (2 marks)
- (iii) The value of the company's share. (2 marks)
- (c) Justify three reasons that could make companies in the same industry to have different price earnings (P/E) ratios. (6 marks)

(Total: 20 marks)

QUESTION TWO

- (a) (i) Among the most familiar and widely used valuation tools in equity valuation are price multiples. Justify why price multiples are used in equity valuation. (2 marks)
- (ii) Zawadi Designers Limited's shares are selling for Sh.25 per share. Earnings for the last 12 months were Sh.1 per share. The average trailing price earnings (P/E) ratio for firms in Zawadi Designers Limited's industry is 32 times.

Required:

Using the method of comparables, determine whether Zawadi Designers Limited's share is overvalued or undervalued. (2 marks)

- (b) Highlight two advantages of using the price-to-cash flow (P/CF) ratio as an equity valuation tool. (2 marks)
- (c) The following data was gathered by Ezekiel Rono, an equity analyst who researches for Redline Company:

1.	Dividend payout ratio	=	75%
2.	Return on equity (ROE)	=	18%
3.	Earnings per share (EPS)	=	Sh.5.50
4.	Sales per share	=	Sh.350
5.	Expected earnings/dividends/sales growth	=	4.5%
6.	Shareholders required rate of return	=	15%

Required:

The firm's justified price-to-sales (P/S) ratio multiple. (2 marks)

- (d) The following information is provided:

Company	Book value of equity 2014 Sh. "million"	Sales 2014 Sh. "million"	Shares outstanding 2014 Sh. "million"	Price Sh.
Mavuno Limited	39,900	64,746	12,324	62.74
Ndovu Limited	122,040	64,374	21,542	51.26

Peer Group	Mean	Median	Mean	Median
	Price-to-book (P/B)	Price-to-book (P/B)	Price-to-sale (P/S) Sales Sh. "million"	Price-to-sale (P/S) Sales Sh. "million"
Pharmaceuticals	11.244	8.50	17.416	9.06
Computer applications software	8.20	4.28	6.84	2.88

Mavuno Limited belongs to the pharmaceuticals group and Ndovu Limited belongs to the computer applications software group.

Required:

- (i) The current price-to-book (P/B) ratio for each company. (4 marks)
 - (ii) The current price-to-sales (P/S) ratio for each company. (4 marks)
 - (iii) Determine whether the share is overvalued, fairly valued or undervalued for each company based on the results obtained in (d) (i) and (ii) above. (4 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) Distinguish between a "firm's free cash flow" and a "free cash flow to equity". (4 marks)
- (b) The following information is available for Mapambo Limited:

Capital expenditure	Sh.20 million
Corporate tax rate	30%
Debt repayment	Sh.23 million
Depreciation charge	Sh.10 million

Income statement:

	Sh. "million"
Sales	650
Less: Cost of sales	<u>(438)</u>
	212
Operating expenses	<u>(107.5)</u>
	104.5
Less: Interest expenses	<u>(8)</u>
Earnings before tax	96.5
Less: Tax	<u>(28.95)</u>
Net income	<u>67.55</u>

Required:

- (i) Free cash flow to equity. (4 marks)
 - (ii) Free cash flow to the firm. (4 marks)
 - (c) Summarise four advantages and four challenges of technical analysis. (8 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) The following information relates to Wageni Ltd.:

1. The company reported before tax operating income of Sh.21 million for the year ended 31 December 2014. This was after charging Sh.4 million for development and launch cost of a new product that is expected to generate profits for 4 years.
2. The company has a risk adjusted weighted average cost of capital (WACC) of 12%.
3. The company is paying interest at a rate of 9% per annum on a substantial long-term loan. The interest is not charged as expense in the operating income in note 1 above.
4. The company's non-current assets value is Sh.50 million.
5. The net current assets have a value of Sh.22 million.
6. The replacement cost of the non-current assets is estimated to be Sh.64 million.
7. Corporate tax rate is 30%.

Required:

- (i) The company's economic value added (EVA). (6 marks)
- (ii) The company's residual income (RI). (4 marks)
- (iii) Comment on the results obtained in (a) (i) and (ii) above. (2 marks)

(b) The following information relates to Platinum Limited, a private firm:

1.	Working capital balance	= Sh.4,000,000
2.	Fair value of fixed assets	= Sh.11,000,000
3.	Book value of fixed assets	= Sh.8,000,000
4.	Normalised earnings of firm	= Sh.2,000,000
5.	Required rate of return on working capital	= 5 per cent
6.	Required rate of return on fixed assets	= 8 per cent
7.	Required rate of return on intangible assets	= 15 per cent
8.	Weighted average cost of capital	= 10 per cent
9.	Long-term growth rate of residual income	= 5 per cent

Required:

Using the excess earnings method (EEM), determine:

- (i) The value of intangible assets for Platinum Limited. (4 marks)
(ii) The market value of invested capital. (2 marks)

(c) Describe two steps of the top-down approach of equity valuation. (2 marks)
(Total: 20 marks)

QUESTION FIVE

(a) An investment analyst plays a critical role in collecting, organising and communicating corporate information and to some extent recommending appropriate investment action based on sound analysis.

In relation to the above statement, describe six features of an effective research report. (6 marks)

(b) The following information relates to Golden Star Limited, a company quoted at the PAQUA Securities Exchange:

1. The current market price per share is Sh.28.27.
2. The most recent quarterly dividend per share is Sh.0.2.
3. Over the coming year, two more quarterly dividends of Sh.0.20 are expected, followed by two quarterly dividends of Sh.0.22 per share.
4. The company has a required rate of return on equity of 9.5%.
5. The target price per share is Sh.32 over the one year period.

Required:

- (i) One-year expected return of the company. (3 marks)
(ii) The target price if the company is fairly valued. Ignore returns from reinvesting the quarterly dividends. (3 marks)

(c) (i) The following information relates to Zelion Limited:

1. Current market price per share Sh.36.
2. Last dividend paid Sh.2.40.
3. Required rate of return 12%.
4. The dividends are expected to grow at a constant rate in the foreseeable future.

Required:

The expected share price 5 years from now. (4 marks)

(ii) Discuss two strengths of the two stage dividend discount model (DDM) compared to the constant growth dividend discount model.

(4 marks)

(Total: 20 marks)

.....

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	.4665	.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	.1094	.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	.3252	.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	.1480	.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	.0026	.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	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
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	