



UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF MANAGEMENT AND FINANCE

Postgraduate & Mid-career Development Unit

Master of Business Administration/Master of Business Administration in Finance/Master of Business Administration in Marketing/Master of Business Administration in HRM (Semester II- Second-half) Repeat Examination – July, 2017

MBA 535 – Financial Management

Three (03) Hours

Instructions:

1. Answer all questions.
 2. Part I and Part II should be answered in separate books and hand over separately to the supervisor.
 3. Use of calculators is permitted.
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PART I

1. i. "It is generally accepted that Wealth maximization is superior objective than profit maximization for any business entity". Based on this statement discuss the shortcomings of profit maximization objective.

(6 Marks)

- ii. In large corporation, ownership and management are separated. What are the main implications of this separation? Explain.

(4 Marks)

iii. King and Queen Ltd is considering the purchase of a new machine. The machine will cost Rs. 400,000 and Rs. 60,000 for shipping and installation. An increased investment in net working capital of (NWC) Rs. 30,000 will be needed to support operations if the new machine is acquired. The machine is depreciated straight-line to zero over the project's four-year life, at the end of which the machine can be scrapped for Rs. 40,000. Revenue will increase by Rs. 660,000 in year one and remain unchanged for the rest of the period. Operating costs excluding depreciation will rise by Rs. 160,000 in year one and remain at that level for the rest of the period. The tax rate for the company is 30%.

a. Calculate initial cash flow, annual operating cash flow and the terminal year cash flow.

b. If the cost of capital is 12% per annum for King and Queen Ltd, determine whether the purchase of the machine is prudent.

(10 Marks)

iv. Do the net present value (NPV) and Internal rate of return (IRR) always agree with respect to ranking decisions? Explain with examples.

(6 Marks)

(Total 26 Marks)

2. i. What are the important factors impacts on capital structure decisions?

(3 Marks)

ii. Explain briefly Modigliani-Miller approach to capital structure decision.

(5 Marks)

iii. Assume you are in a "Modigliani Miller" world with corporate taxes but no costs of financial distress. Moon PLC has perpetual EBIT of Rs. 8 million per year and an all equity discount rate of 12%. Moon PLC has Rs.15 million of debt outstanding at a cost 8%, and its corporate tax rate is 30%.

a. What is Moon PLC's value?

b. What is Moon PLC's cost of equity?

(6 Marks)

(Total 14 marks)

PART II

3. i. Describe Systematic risk and Unsystematic risk. Which risk is relevant in explaining the relationship between risk and return as per Capital Asset Pricing Model? Justify your answer?

(06 Marks)

- ii. The beta co-efficient of security 'Alpha' is 1.5. The risk free rate of return is 10% and the required rate of return is 20% on the market portfolio. If the dividend expected during the coming year is Rs.3.60 and the growth rate of dividend is 8%, at what price should the security 'Alpha' could be sold based on the CAPM?

(05 Marks)

- iii. Your economic analysis shows the following possible returns on two investments of Alpha Ltd and Beta Ltd. under three different scenarios:

Scenario	Possibility	Return	
		Alpha (%)	Beta (%)
A	0.3	10	08
B	0.4	16	15
C	0.3	12	20

- Calculate the expected return on each investment.
- Calculate the risk of returns of Alpha Ltd. and Beta Ltd.
- If you had placed 50% of your money in each, what would have been the expected return and risk of your portfolio?
- What is the expected risk premium on the portfolio if the expected Treasury bill rate is 6.5 percent?

(12 marks)

(Total 23 Marks)

4. i. Crystal Glass recently paid Rs. 3.60 as an annual dividend. Future dividends are projected at Rs. 3.80, Rs. 4.10, and Rs. 4.25 over the next 3 years, respectively. Beginning 4 years from now, the dividend is expected to increase by 3 percent annually. What is one share of this stock worth to you if you require a 12 percent rate of return on similar investments?

(05 Marks)

- ii. You are considering bonds of two companies. Alpha's bond pays interest at 12 percent and Beta's at 6 percent per year. Both have face value of Rs. 1000 and maturity of five years.

- a. What will be the values of the bonds if the market interest rate is 9 percent?
- b. What will be the values of the bonds if the market interest rate increases to 12 percent?
- c. Which bond declines more in value when interest rates rise? Why?

(07 Marks)

- iii. Describe the relationships that exist between the coupon rate and the yield to maturity for both a discount bond and a premium bond.

(04 Marks)

- iv. Briefly explain the three general areas of responsibility for a financial manager.

(06 Marks)

(Total 22 Marks)

5.

- i. Why is it important to use marginal weights in calculating a weighted average cost of capital?

(04 Marks)

- ii. Distinguish between "Operating Leverage and Financial Leverage" with appropriate illustrations.

(04 Marks)

iii. The Modern chemicals Ltd. require Rs.2, 500, 000 for a new plant. This plant is expected to yield earnings before interest and taxes of Rs.500, 000. While deciding about the financial plan, the company considers the objective of maximizing earning per share. It has three alternatives to finance the project by raising debt of Rs. 250,000 or Rs. 1,000,000 or Rs.1, 500, 000 and the balance, in each case, by issuing equity shares. The company's share is currently selling at Rs. 150, but is expected to decline to Rs. 125 in case the funds are borrowed in excess of Rs. 1,000,000. The funds can be borrowed at the rate of 10% up to Rs. 250,000 at 15% over Rs. 250,000 and up to Rs. 1,000,000 and at 20% over Rs.1, 000, 000. The tax rate applicable to the company is 35%. Which form of financing should the company choose?

(07 Marks)

(Total 15 Marks)

Important Formulas

$$1. E(R) = \sum_{i=1}^n P_i R_i$$

$$2. \sigma = \sqrt{\sum_{i=1}^n (R_i - E(R))^2 P_i}$$

$$3. E(r_p) = w_B E(r_B) + w_S E(r_S) \quad \sigma_p^2 = (w_B \sigma_B)^2 + (w_S \sigma_S)^2 + 2(w_B \sigma_B)(w_S \sigma_S) \rho_{BS}$$

$$4. \bar{R}_i = R_F + \beta_i (\bar{R}_M - R_F)$$

$$5. k_e = (D_1 / P_0) + g$$

$$6. P_0 = \frac{D_0(1+g)}{K_e - g} = \frac{D_1}{K_e - g}$$

Present value interest factor of Rs.1 per period at i% for n periods, PVIF(i,n).

period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.869
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.769	0.755
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675	0.658
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592	0.571
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519	0.496
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456	0.433
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400	0.376
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351	0.327
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308	0.284
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270	0.246
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237	0.213
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208	0.184
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182	0.158
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160	0.136
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140	0.116
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218	0.188	0.163	0.141	0.123	0.100
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198	0.170	0.146	0.125	0.108	0.086
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180	0.153	0.130	0.111	0.095	0.074
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164	0.138	0.116	0.098	0.083	0.063
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104	0.087	0.073	0.054

Present value interest factor of an (ordinary) annuity of Rs.1 per period at i% for n periods, PVIFA(i,n).

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.869
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647	1.625
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322	2.281
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974	2.914	2.854
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433	3.348
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998	3.889	3.784
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288	4.156
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639	4.484
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.946	4.771
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426	5.216	5.019
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687	5.453	5.231
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918	5.660	5.416
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122	5.842	5.581
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628	6.302	6.002	5.721
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462	6.142	5.844
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824	7.379	6.974	6.604	6.265	5.948
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120	6.729	6.373	6.036
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250	6.840	6.467	6.112
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366	6.938	6.550	6.178
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514	7.963	7.469	7.025	6.623	6.231