



UNIVERSITY OF RUHUNA
FACULTY OF MANAGEMENT AND FINANCE

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087

BACHELOR OF BUSINESS ADMINISTRATION HONOURS DEGREE

Three Hours

4000 LEVEL FIRST SEMESTER END EXAMINATION – AUGUST/SEPTEMBER 2022

ACC 41133 – Strategic Finance

Academic Year 2021/2022

Instructions

- Answer five (05) questions only including question No. one (01) and question No. two (02).
- Calculators are allowed.

Question No. 01

- A. “Strategic finance means not only managing a company's finances but managing them with the intention to succeed-that is, to attain the company's long-term goals and objectives and maximize shareholder value over time”. Briefly explain this statement. (02 Marks)
- B. Describe the three main features of Strategic Finance with relevant examples. (03 Marks)
- C. “The approach of strategic finance is to drive decision making that prioritizes business objectives in the long term. Strategic financial management not only assists in setting company targets but also creates a platform for planning and governing plans to tackle challenges along the way. It also involves laying out steps to drive the business towards its objectives”. Briefly explain the above statement with the purpose of Strategic Finance. (03 Marks)
- D. “The world’s leading currencies such as US Dollar, Japanese Yen, British Pound, European Euro are floating against the other currencies, a minority of countries use floating exchange rates”. Briefly explain the above statement focusing on main three exchange rate systems. (03 Marks)
- E. On 01st January 2022 a UK company enters a contract to buy a piece of equipment from the US for \$ 300,000. The invoice is to be settled on 31st March 2022. The exchange rate on 01st January is \$ 1.60/£ (\$ 1.60 = £ 1). However, by 31st March, the UK Pound may have.
- Strengthened to \$ 1.75/£ or
 - Depreciated to \$ 1.45/£.

Required:

Explain the risk faced by the UK company.

(01 Mark)

- F. A US exporter sells product in Europe on a cost-plus basis. The selling price is based on a US price of \$ 16 to cover costs and provide a profit margin. The current exchange rate is € 1.26/\$.

Required:

Calculate the effect on the exporter’s business if the Dollar strengthened to € 1.31/\$.

(01 Mark)

- G. The US\$ rate per UK£ is quoted as 1.4325 – 1.4330.
 Company A wants to buy \$ 100,000 in exchange for UK£
 Company A wants to sell \$ 200,000 in exchange for UK£.

Required:

Calculate the exchange rate will the bank offer each company.

(01 Mark)

- H. An item costs \$ 3,000 in the US. Assume that UK£ and US\$ are at Purchasing Power Parity Theory (PPPT) equilibrium, at the current spot rate of \$ 1.50/£. The spot rate is the rate at which currency can be exchanged today. Inflation in the US is expected to grow at 5% per annum but at 4% per annum in the UK.

Required:

Calculate the expected future spot rate.

(01 Mark)

- I. The US\$ and UK£ are currently trading at \$ 1.72/£. Inflation in the US is expected to grow at 3% per annum, but at 4% per annum in the UK.

Required:

Predict the future spot rate in a year's time.

(01 Mark)

- J. A treasure can borrow in Swiss France at a rate of 3% per annum or in the UK at a rate of 7% per annum. The current rate of exchange is SF 10/£.

Required:

Calculate the forward rate of exchange for delivery in a year's time.

(01 Mark)

- K. Liverpool company must make a payment of US\$ 450,000 in 03 months' time. The company treasurer has determined the following:

Spot rate \$ 1.7000 - \$ 1.7040

03 months forward rate \$ 1.6902 - \$ 1.6944

Money market rates	Borrowing (per annum)	Deposit (per annum)
US\$	6.5%	5%
UK£	7.5%	6%

Required:

Decide whether a forward contract hedge or a money market hedge should be undertaken.

(02 Marks)

- L. A UK exporter is due to receive \$25 million in 03 months' time. Its bank offers 03 months put option on \$ 25 million at an exercise price of \$ 1.50/£ at a premium of UK£ 30,000.

Required:

Show the net UK£ receipt if the future spot is either \$ 1.60 or \$1.40.

(01 Mark)

(Total Marks 20)

Question No. 02

- A. The following is the statement of financial position extracts as at 31st March 2022 of a Company.

	Rs. million
Ordinary shares at Rs. 10 per share	240
Retained earnings	180
14%, Preference shares at Rs.10 per share	150
15%, Debentures at Rs. 100 per debenture	120

The ordinary shares of the company have a cum-dividend market value of Rs. 32.50 per share and the dividend per ordinary share is Rs. 5.00 which expected to grow at 10% constant rate. The preference shares of the company have an ex-dividend market value of Rs. 14.00 per share. The debentures are redeemable at a 20% premium after 05 years. The ex-interest market value of debenture is Rs. 105.00. The company pays tax at an annual rate of 40%.

Required:

- a. Calculate the weighted average cost of capital (WACC) of the company.
 - i. Using book value
 - ii. Using market value.
- b. Discuss which answer is the most suitable as the overall cost of capital for this company.

(05 Marks)

- B. A Company has developed a new product with a 10-year expected life. A market study conducted by the company has revealed that a domestic as well as an export market exists for the product. It is also indicated that a small plant will suffice to cater to the domestic demand. However, a large plant will have to be built if export demand also has to be met. The size of the export market is not known. The company has the option of building a small plant today and then after three years decide to expand. The company may decide to expand if the initial demand consisting of both domestic and export is high. Further, the company has two options vis-à-vis its decision to expand: the small plant could be expanded to a large size or a small size. The market study indicates that the chance for the initial demand will be high is 0.60 and low 0.40. Given a high initial demand, there is 0.80 probability that demand will be high in the subsequent years and 0.20 probability of demand being low. The following are the relevant data for various options.

Plant size	Cash outlay (Rs. Million)	Initial (1-3 years)			Subsequent (4 – 10 years)		
		Demand	Probability	NCF (Rs. Million)	Demand	Probability	NCF (Rs. Million)
Large	500	High	0.6	100	High	0.8	120
					Low	0.2	100
		Low	0.4	80	High	0.2	80
					Low	0.8	60
Small	200	High	0.6	40	High	0.8	40
					Low	0.2	30
		Low	0.4	30	High	0.2	30
					Low	0.8	20
Large Expansion	300				High	0.8	130
					Low	0.2	90
Small Expansion	100				High	0.2	70
					Low	0.8	50

Required:

If discount rate is 10%, evaluate the investment proposals.

(11 Marks)

- C. A company is considering investing Rs. 01million in equipment to produce a new type of ball. Sales of the product are expected to continue for three years, at the end of which the equipment will have a scrap value of Rs. 160,000. Sales revenue of Rs. 1.2 million per annum will be generated at a variable cost of Rs. 700,000. Annual fixed costs will increase by Rs. 100,000 and that the company has a cost of capital of 12%.

- Calculate the net present value (NPV) of this investment.
- Calculate the sensitivity for Initial investment, Scrap value, Selling price per unit, Variable cost per unit, Sales volume, and Annual Fixed cost.

(04 Marks)

(Total Marks 20)

Question No. 03

- A. A company normally earns Rs. 6.48 million net operating income (Earnings before interest and taxes). The finance manager of the company wants to take a decision regarding the capital structure. After the study of capital market, he is attempting to evaluate three possible capital structures given below.

Capital structure	CS 001	CS 002	CS 003
Value of debt capital (D-Rs. '000)	24,445	25,920	32,400
Cost of equity capital rate (ke - %)	11.6	12.4	13.5
Cost of debt capital rate (kd - %)	04.5	05.0	05.5

Required:

Describe the optimum capital structure.

(03 Marks)

- B. Briefly explain basic propositions of the Modigliani- Miller (MM) approach? (02 Marks)
- C. Explain Modigliani- Miller (MM) approach with tax. (03 Marks)
- D. What is the meant by Arbitrage Process? (02 Marks)
- (Total Marks 10)**

Question No. 04.

- A. "Financial Risk as the term suggests is the risk that involves financial loss to firms. Financial risk generally arises due to instability and losses in the financial market caused by movements in stock prices, currencies, interest rates and more".
Briefly explain this statement with various types of financial risk.

(03 Marks)

- B. A portfolio consists of three assets L, M and N with the following information.

	L	M	N	Correlation coefficient
Expected Rate of Return	25%	22%	20%	
Standard Deviation	30%	26%	24%	
Correlation coefficient between	-	-	-	
LM	-	-	-	(50%)
MN	-	-	-	40%
LN	-	-	-	60%

The assets L,M and N are weighted 30%, 30% and 40% respectively.

Required:

Calculate the expected rate of return and risk (standard deviation) of the portfolio.

(05 Marks)

- C. The following are the information of three assets.

Assets	Standard Deviation of Asset	Correlation coefficient between asset and market
A	0.1897	0.78
B	0.6522	0.83
C	0.8534	0.65

Required:

If the standard deviation of market is 89%, determine the beta coefficient for each asset and select the most risky (systematic risk) asset.

(02 Marks)

(Total Marks 10)

Question No. 05.

- A. Briefly explain interest rate exposure and gap exposure. (02 Marks)
- B. "An interest rate swaps can be used to hedge against an adverse movement in interest rates. Swaps may also be sought by firms that desire a type of interest rate structure that another firm can provide less expensively".
Briefly explain this statement with an example. (02 Marks)
- C. What are main aims of Forward Rate Agreements (FRAs)? (02 Marks)
- D. A company's financial projections show an expected cash deficit in two months' time of \$ 10 million which will last for approximately three months. It is now 01st January 2022. The treasurer is concerned that interest rates may rise before 01st March 2022. Protection is required for two months. The treasurer can lock into an interest rate today, for a future loan. The company takes out a loan as normal. The rate it pays is the going market rate at the date the loan is taken out. It will then receive or pay compensation under the separate forward rate agreement (FRA) to return to the locked-in rate.
A 2 – 5 FRA at 5.00 – 4.70 is agreed.

Required:

Calculate the interest payable if in two months' time the market rate is 07% or 04%. (02 Marks)

- E. Company A wishes to raise \$ 06 million and to pay interest at a floating rate, as it would like to be able to take advantage of any fall in interest rates. It can borrow for one year at a fixed rate of 10% or at a floating rate of 01% above LIBOR (London Interbank Offered Rate).

Company B also wishes to raise \$ 06 million. They would prefer to issue fixed rate debt because they want certainty about their future interest payments, but can only borrow for one year at 13% fixed or LIBOR + 2% floating, as it has a lower credit rating than company A.

Required:

Calculate the effective swap rate each company – assume savings are split equally. (02 Marks)
(Total Marks 10)

Question No. 06.

Explain the following terms.

- A. Interest rate guarantees and Interest rate futures.
- B. Conglomerate mergers and Reverse mergers.
- C. Friendly takeover and Hostile takeover.
- D. Forward contract and Futures contract.

(Total Marks 2.5 x 4 = 10)

Table 1: Present value factors for Rs. 01 discounted at i rate of interest for n periods. (PVF)

Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	20%
1	0.990	0.980	0.970	0.961	0.952	0.934	0.934	0.925	0.917	0.909	0.892	0.877	0.869	0.862	0.833
2	0.980	0.961	0.942	0.924	0.907	0.890	0.873	0.857	0.841	0.826	0.797	0.769	0.756	0.743	0.694
3	0.970	0.942	0.915	0.889	0.863	0.839	0.816	0.793	0.772	0.751	0.711	0.675	0.657	0.640	0.578
4	0.961	0.923	0.888	0.854	0.822	0.792	0.762	0.735	0.708	0.683	0.635	0.592	0.571	0.552	0.482
5	0.951	0.905	0.862	0.821	0.783	0.747	0.713	0.680	0.649	0.620	0.567	0.519	0.497	0.476	0.401
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.506	0.455	0.432	0.410	0.334
7	0.932	0.870	0.813	0.759	0.710	0.665	0.622	0.583	0.547	0.513	0.452	0.399	0.375	0.353	0.279
8	0.923	0.853	0.789	0.730	0.676	0.627	0.582	0.540	0.501	0.466	0.403	0.350	0.326	0.305	0.232
9	0.914	0.836	0.766	0.702	0.644	0.591	0.543	0.500	0.460	0.424	0.360	0.307	0.284	0.263	0.193
10	0.905	0.820	0.744	0.675	0.613	0.558	0.508	0.463	0.422	0.385	0.322	0.269	0.247	0.226	0.161
11	0.896	0.804	0.722	0.649	0.584	0.526	0.475	0.428	0.387	0.350	0.287	0.236	0.214	0.195	0.134
12	0.887	0.788	0.701	0.624	0.556	0.497	0.444	0.397	0.355	0.318	0.256	0.207	0.186	0.168	0.112

Table 2: Present value annuity factors for Rs. 01 discounted at i rate of interest for n periods. (PVAF)

Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	20%
1	0.990	0.980	0.970	0.961	0.952	0.934	0.934	0.925	0.917	0.909	0.892	0.877	0.869	0.862	0.833
2	1.970	1.941	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.735	1.690	1.646	1.625	1.605	1.527
3	2.941	2.883	2.828	2.775	2.723	2.673	2.624	2.577	2.531	2.486	2.401	2.321	2.283	2.245	2.106
4	3.902	3.807	3.717	3.629	3.546	3.465	3.387	3.312	3.239	3.169	3.037	2.913	2.855	2.798	2.588
5	4.853	4.713	4.579	4.451	4.329	4.212	4.100	3.992	3.889	3.790	3.604	3.433	3.352	3.274	2.990
6	5.795	5.601	5.417	5.242	5.075	4.917	4.766	4.622	4.485	4.355	4.111	3.888	3.784	3.684	3.325
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.563	4.288	4.160	4.038	3.604
8	7.651	7.325	7.019	6.732	6.463	6.209	5.971	5.746	5.534	5.334	4.967	4.638	4.487	4.343	3.837
9	8.566	8.162	7.786	7.435	7.107	6.801	6.515	6.246	5.995	5.759	5.328	4.946	4.771	4.606	4.031
10	9.471	8.982	8.530	8.110	7.721	7.360	7.023	6.710	6.417	6.144	5.650	5.216	5.018	4.833	4.192
11	10.36	9.786	9.252	8.760	8.306	7.886	7.498	7.139	6.805	6.495	5.937	5.452	5.233	5.028	4.327
12	11.25	10.57	9.954	9.385	8.863	8.383	7.942	7.536	7.160	6.813	6.194	5.660	5.420	5.197	4.439

RELEVANT FORMULAS

$ke = \frac{DIV_0(1+g)}{P_0} + g$		$ke = \frac{DIV_1}{P_0} + g$	$IRR = DR(a) + \frac{NPV(a)}{NPV(a) - NPV(b)} \times [DR(b) - DR(a)]$	
kd = Interest Rate (1 - T)		$kp = \frac{DIV_p}{P_0}$	$WACC = [ke \times \frac{E}{TC}] + [kp \times \frac{P}{TC}] + [kd \times \frac{D}{TC}]$	
NI = NOI - INT		$ko = \frac{NOI}{V}$	$V = S + D$	$S = \frac{NI}{ke}$
$k_{hat_p} = \sum w_i k_{hati}$	$\beta = \frac{r\sigma_a}{\sigma_m}$	$\sigma_p = \sqrt{w^2 l \sigma^2 l + w^2 m \sigma^2 m + w^2 n \sigma^2 n + 2w_l w_m (r_{lm} \sigma_l \sigma_m) + 2w_m w_n (r_{mn} \sigma_m \sigma_n) + 2w_l w_n (r_{ln} \sigma_l \sigma_n)}$		
Future spot rate (S1) = $S_0 \times \frac{(1+hc)}{(1+hb)}$		Forward rate of exchange (F0) = $S_0 \times \frac{(1+ic)}{(1+ib)}$		
Sensitivity analysis rate for NPV = $\frac{NPV}{Relevant\ Factor} \times 100$				