



December 08, 2004

**BUSINESS FINANCE DECISIONS**

(MARKS 100)

(3 hours)

Q.1 EA Limited is considering a short term investment of Rs.5 million in equity securities. Four companies have been short-listed for this proposed investment, of which one is to be selected. As an investment consultant, you have collected some data from the market regarding the companies' "Beta" values and Credit ratings:

Company	Beta Values of the Company	Credit Rating
A	1.30	A-
B	0.70	A
C	1.25	BB
D	1.40	B-

The credit rating has been given by Ratings Limited, an independent company whose rating mechanism determines the rate of debt for the companies to borrow. Ratings are categorized into XX+, XX, X and X (where X represents an alphabet). The difference between each category makes the debt 0.25% cheaper or expensive. Rating is done using alphabets in ascending order i.e. A is superior to B and so on. The difference between two successive alphabets represents a change of 1.50% with AA+ always being 3% expensive than the risk free rate which is currently 6% p.a. Returns in the market are expected to give 16% p.a. EA Limited is exposed to a 35% tax rate.

You have also collected some data relating to relative gearing of the above companies and the present 'Alpha' values applicable to their equity returns. This is summarized as:

Company	Gearing as a % age of Total Investment	Alpha Values
A	35	0.75%
B	40	0.68%
C	45	0.54%
D	55	0.95%

**Required:**

- (a) Compute the debt rate currently applicable on the borrowings of each of A, B, C and D Limited (06)
- (b) Explain what is meant by Alpha Values and the factors responsible for the existence and quantum of Alpha Values. (04)
- (c) Give an analysis identifying the basis of your selection in order to maximize the benefit out of the market's current position. (15)

Q.2 Data Storage Limited (DSL) is an established company in the business of Data Storage Devices market and has been the market leader in this line. However, for the first time competitors have taken a lead in the introduction of Static Data Storage Devices (SDSD) range of products. DSL has particularly been very slow in reacting to this new market as it suffered considerable losses on certain export contracts which were not covered by any export guarantee arrangements.

DSL is now exploring the opportunity of investing into SDSD based range. However, it will have to use market penetrating pricings in the early years for two reasons:

- (a) It will be entering into existing markets where competitors have already developed good reputation, and
- (b) Production in early years will not be able to match demand due to shortage of raw material arrangements whereby production for 2005 and 2006 can only be upto 10,000 units per year. This will result in the DSL losing shelf space if lower prices are not offered. Further, an advertising expenditure of Rs. 250,000 per year will have to be maintained for these two years to keep the shelf space until the production will be enough to match demand. Thereafter, marketing expenditure will fall to Rs. 50,000 per year.

The launch price in 2005 will be Rs.135 per unit which is at 10% discount to the price charged by competitors. This discount will not be there from start of 2007 onwards as the production constraint would have been eliminated and DSL is expected to have established a good standing in SDSD market by then. This price is expected to increase to Rs. 183 per unit by 2009.

Capital investment for the project is expected to be Rs.7 million upfront. 10% of this investment is allowable in 2005 for tax purposes whereas the remaining amount attracts the provisions of tax depreciation at the rate of 25% from 2005 onwards. The applicable tax rate is 35%. As the project's life is unlimited and the government is promoting investment in technology, for tax purposes, investment in SDSD technology will be deemed to have been disposed of for nil proceeds at the end of five years' life.

Working capital investment is expected to be as follows:

<b>Year</b>	<b>Working Capital Investment/ (Release)</b>
2005	925,000
2006	192,000
2007	235,475
2008	(123,490)
2009	(465,777)

From 2010, no further investment or release of working capital is expected.

(3)

Market share that DSL can capture in 2005 is 12,500 units. This market demand is expected to grow at the rate of 2% p.a. Sales collection in the early periods is expected to be slow being Rs.0.675 million in 2005. This will quickly boost to Rs. 1.5 million in 2006. Collection against sales is expected to grow by Rs.0.3 million per year from then on till getting stabilized from year 2010 and onwards.

The variable production cost is expected to be Rs. 65 a unit in 2005. The inventory build up and other advance expense will require Rs. 0.7 million payments against them. These payments will grow by Rs. 50,000 per year. Inflation in variable costs is expected to raise this unit cost to Rs. 77 in 2009. The fixed production cost is throughout expected to remain at Rs. 0.2 million per year.

As the life of project is beyond normal forecasting visibility, it is assumed that all revenue and cost will freeze at the level of 2009 from then on.

DSL has planned to raise a loan of Rs.2.5 million for this project. The pre-tax cost of debt applicable to DSL is 8% p.a. whereas for this particular project, due to government policy, loan can be taken at a ½ percent subsidy. Remaining amount will be funded through a right issue at 15% discount to market price which is presently Rs. 65/share. However, there is an issue cost of 5% of amount raised through right issues. Similar industries as SDSA have an equity beta value of 1.2344 with a high gearing of 60%.

**Required:**

- (a) Compute the net present value of the project using APV method considering the subsidized debt availability to the DSL assuming that DSL's existing business is profitable enough to accommodate taxable losses from the SDSA project, if any. (18)
- (b) Given the existing market capitalization of DSL to be Rs. 39 million, calculate the share price if all the facts about the project are disclosed to the shareholders except the issue costs of equity. (05)

Q.3 The financial controller of Debt Collection Limited is considering factoring credit sales. The company's annual turnover is Rs. 250 million of which 90% are credit sales. Bad debts are typically 3% of credit sales. The offer from the 'factor' is subject to the following conditions:

- (1) The factor will take over the complete sales ledger of Debt Collection Limited.
- (2) 80% of the value of credit sales will be advanced immediately (as soon as sales are made to the customer) to Debt Collection Limited, the remaining 20% will be paid to the company one month later. The factor charges 15% per annum discount on funds advanced against credit sales. The factor is normally able to reduce the debtors' collection period to one month instead of the existing period of 2.5 months and the above discount of 15% is also based on one month collection period.

(4)

- (3) The factor offers a 'No Recourse' facility whereby they take on the responsibility for dealing with bad debts. The factor is normally able to reduce bad debts to 2% of credit sales.
- (4) A charge for factoring services of 4% of credit sales will be made.
- (5) A one-off payment of Rs. 250,000 is payable to the factor upfront every year.

The salary of the Sales Ledger Administration of Rs. 1.25 million would be saved under the proposal. Overhead costs of the credit control department, amounting to Rs.200,000 per annum, would have to be reallocated. The company's cost of Running finance is 12% per annum. Debt Collection Limited pays its sales force on a commission only basis. The cost of this is 5% of credit sales and is payable immediately as sales are made. There is no intention to alter this arrangement under the factoring proposal.

**Required:**

- (a) Evaluate the proposal to factor the sales ledger by comparing existing debtor collection cost of Debt Collection Limited with those that would result from using the factor assuming that the factor will be able to reduce the debtors' collection period to one month. (08)
- (b) If the credit sales face a drop of 10% due to the introduction of factoring arrangement, assuming DCL to be working on a Contribution to Sales ratio of 25%, what should be the factoring services charge instead of 4% as in (a) to still keep the factoring arrangement feasible? (05)

Q.4 Your managing director has just held a meeting with an investment analyst. It was suggested that company's shares are overvalued by 10%. The data used by the investment analyst in his calculations is shown below:

<b>Year</b>	<b>Dividends (Rs.'000)</b>	<b>No. of shares (‘000)</b>	<b>Earnings (Rs.'000)</b>
2000	5,680	28,600	18,260
2001	6,134	28,600	21,320
2002	8,108	35,000	26,710
2003	10,007	40,000	28,620

Your company's current share price is Rs.6.45 and the cost of equity is estimated to be 12.5%.

**Required:**

Prepare a brief report for the managing director discussing whether or not your company's shares are overvalued, clearly indicating the basis adopted by the analyst to reach his conclusion and whether the basis is reasonable. Relevant calculations should form part of your report. (10)

(5)

Q.5 The shareholders of Maxwell Limited are critical of the management, for maintaining a low dividend payout ratio. On the other hand, the management justifies it claiming that cash is required to meet growing business needs of the company.

**Required:**

Discuss the possible conflicts that might exist between management and shareholders over the use of free cash flow, and illustrate actions the shareholders might take to reduce such conflicts.

(06)

Q.6 The Board of Directors of UAA Bank Limited are considering the payment of dividend for the year ended December 31, 2003. You as a Vice President of the bank have been assigned to calculate the maximum amount, which can be declared as dividend. For this purpose you have been provided with the financial statements and other details of the bank that show the unadjusted net profit before tax and adjustment or provision of Rs. 780 million. You have also been provided with the following age analysis of receivables as at December 31 2003:

Days outstanding	Short Term		Long Term	
	Principal	Markup	Principal	Mark-up
	Rupees in thousands			
0-60 days	150,000	25,000	240,000	80,000
60-90 days	105,000	21,000	175,000	62,000
90-180 days	80,000	19,000	58,000	19,000
180 days to 1 year	64,000	15,000	110,000	40,000
1 to 2 years	28,000	7,000	50,000	15,000
2 to 3 years	26,000	6,500	42,000	13,000
3 years and more	42,000	14,000	17,000	5,000
	495,000	107,500	692,000	234,000

UAA's policy for declaration of dividend is 50% of net profit after tax. The tax rate applicable to the bank is 41%. The provision stood at Rs. 115,595,995 on January 01, 2003.

**Required:**

Calculate the maximum amount, which can be declared as dividend considering the above information.

(12)

Q.7 You have just been hired as an assistant to the treasury manager of a large manufacturing firm. The company produces and exports industrial equipments, and manufactures its own packing crates from raw lumber. The firm has several types of treasury risk, including exposure to variations in product process, exchange rates, and interest rates. To date, future contracts have not been used to hedge exposures, but the same are under consideration. Several questions have been raised by the members of the Board, and you have been asked to present information about futures at the upcoming Board Meeting.

(6)

**Required:**

- (a) Explain the features of Futures Contracts, including daily mark-to-market and margin requirements. **(04)**
- (b) Explain the difference between a hedger and a speculator in terms of trading in Futures Contracts. **(02)**
- (c) Identify four disadvantages of Forward Contracts as compared with Futures Contracts. **(02)**
- (d) Differentiate between Forward and Options Contracts. List down at least two differences. **(03)**

**(THE END)**