Final Examinations Summer 2005

June 08, 2005

## BUSINESS FINANCE DECISIONS

Q. 1 Victory Ltd. manufactures engineering equipment. The company has received an order from a new customer for five machines at Rs.50,000 each. Victory Ltd's terms of sale are $10 \%$ of the sales value payable with order and the balance is payable six months after delivery. The delivery is to be made at the end of six months from acceptance of order.

Victory Ltd's past experience has been that only $60 \%$ of similar customers pay within time. Customers who do not pay within six months of delivery are referred to a debt agency to pursue the debt. The agency has in the past had $50 \%$ success rate obtaining immediate payment once they became involved. When they are unsuccessful the debt is written off by Victory Ltd. The agency's fee is $2 \%$ of the recoverable amount payable with the request for service. This fee is not refundable.

You are an accountant in Victory Ltd's credit control department, and based on the company's past experience and on discussions with the sales and credit managers, you do not expect the pattern of payment and collection to change.

Incremental costs associated with the new customer's order are expected to be Rs. 36,000 per machine. $70 \%$ of these are for materials and are incurred shortly after the order has been accepted. The remaining $30 \%$ includes all other costs which you can assume is paid six months after delivery.

Victory Ltd's opportunity cost of capital is 16\%. Ignore taxation.

## Required:

Write a report to the Credit Control Manager evaluating purely from a financial point of view, whether Victory Ltd. should accept the order from the new customer on the basis of the above information.
Q. 2 The directors of XYZ Ltd. wish to expand the company's operations. However, they are not prepared at the present time to borrow finance for capital investment. They have therefore decided to use the company's cash resources for the expansion program.

Three possible investments have been identified. Only Rs. 4 million is available in cash and the directors intend to limit their capital expenditure over the next 12 months to this amount. The projects are not divisible (i.e. cannot be scaled down) and none of them can be postponed. The following cashflows do not allow for inflation which is expected to be $10 \%$ per annum, constant for the foreseeable future. Ignore taxation.

| Expected net cashflows (including residual values) |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Project | Initial investment | Year 1 | Year 2 | Year 3 |
|  | Rs. | Rs. | Rs. | Rs. |
| A | $(3,500,000)$ | 950,000 | $1,100,000$ | $2,000,000$ |
| B | $(1,050,000)$ | 450,000 | 450,000 | 450,000 |
| C | $(350,000)$ | $(400,000)$ | $(250,000)$ | $1,250,000$ |

The company's shareholders currently require a return of $15 \%$ nominal on their investment.

## Required:

Calculate the expected net present value and profitability indexes of the three projects.
Q. 3 Smart Ltd (SL) has made a takeover bid for Paramount Ltd (PL). SL's share price has been performing well in recent months as the market believes its Managing Director, has the ability to improve the company's earnings significantly. The acquisition of PL, an erratic performer in recent years, seems to be a sensible move in commercial terms.

A summary of the financial data before the bid is as follows:

## SL

Number of shares in issue
Earnings available to ordinary shareholders P/E ratio

5 million
Rs 2.5 million
12.5

## PL

15 million Rs 7.5 million 7.5

The SL expects that the post-acquisition scenario will be as follows:

| Estimated market capitalization (Rs in million) | Rs. 125 million |
| :--- | :--- |
| Estimated share price. | Rs. 8.33 |
| Estimated EPS. | Re. 0.67 |
| Estimated equivalent value of one old PL share | Rs. 5.55 |

The bid offer is 10 shares of SL for 15 shares of PL.

## Required:

Write a report of the management of SL giving your comments on the following:
(a) Share exchange ratio.
(b) Post acquisition scenario as being expected by the management.
(c) Whether the take over is beneficial to the shareholders of SL.
Q. 4 Your company is about to invest in the shares of a non-listed public company, WIZ Ltd., but is unsure as to the P/E ratio that should be used for the valuation of the company. A team has been setup for this assignment headed by you. Other team members have been researching the market and have gathered the following data:
(a) An analysis by the brokerage houses have revealed that companies involved in similar operating activities have an average equity beta of 0.98 with gearing of $45 \%$ calculated as debt to total capital in terms of market value. Gearing of WIZ Ltd. is $65 \%$ calculated in the same way.
(b) The average debt rate applicable in similar industry is around $9 \%$ p.a. However, WIZ Ltd. is exposed to an average rate of $10.5 \%$ p.a. due to a heavy financial risk associated primarily with its greater gearing. This increased financial risk has given rise to an expectation in the ordinary equity holders of a return, $5 \%$ more than an equivalent company in the industry.
(c) WIZ Ltd. has been earning a Return on Capital Employed, calculated as Profits before interest and tax divided by the value of debt and equity, of $16.52 \%$, with an average of $60 \%$ of its earnings available for ordinary shareholders and distributed in the form of dividends.
(d) Risk free return is $6.5 \%$ p.a. and market return is estimated to be around 16\% p.a.
(e) The very fact that WIZ Ltd. is non-listed, is expected to increase the equity holders' required rate of return by around $7.5 \%$.
(f) Generally applicable tax rate in industry is $35 \%$ which is also applicable on WIZ Ltd. and no expected change to this rate is expected in the near future.

## Required:

Calculate the P/E multiple that should be used while buying the shares in WIZ Ltd., having due regard to the available information. State clearly any assumptions that you make.
Q. 5 Following are some statistics about three of the country's major listed consumer goods companies.

| Company | Share Price in Rupees |  |  | Dividend <br> Yield (\%) | P/E Ratio |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Current | Yearly High | Yearly Low |  | 14.2 |
| Posh Ltd | 63 | 112 | 54 | 187 | 2.1 |
| Action Ltd | 291 | 317 | 151 | 2.3 | 13.0 |
| Super Ltd | 187 | 201 |  | 21.1 |  |

## Required:

Using data in the above table, calculate the dividend cover for three companies, and explain the significance of the same for each company from the point of view of their respective equity investors.
Q. 6 Shahid Ltd. is experiencing a period of rapid growth. Earnings and dividends are expected to grow at a rate of $15 \%$ during the next two years, at $13 \%$ in the third year, and at a constant rate of $6 \%$ thereafter. Shahid's last dividend was Rs. 1.15 and the required rate of return is $12 \%$.

## Required:

Calculate the value of the stock today.
Q. 7 Technocrats (Pvt) Ltd. is an Engineering services and manufacturing company, operating for the last ten years. The founders of the company are its major shareholders, who have also been managing the company since its inception.

For the last four years, the company has been in a state of decline. This year, the situation has changed and Technocrats have an opportunity to bid for three projects each worth Rs. 1 billion approximately. There are, however, a few problems. The company's cash flow position is very tight due to the past four years' losses. The company has been financing its projects with a mixture of equity and loan financing.

Although these projects are lucrative, they require an initial outlay of $20 \%$ before commencement of the projects and then equal cash outflows for next four years. The project completion period is four years. The revenues will then start to flow. 80\% revenue will be received at end of each project. $20 \%$ of the revenue will be held back on account of Retention money, and will be released one year after the end of the project. The company's net profit is estimated to be $30 \%$ for each project.

The company is currently considering various options to finance these projects. Being the Finance Manager, you have been called by the BOD for a meeting to discuss these projects. Some of the Directors made the following comments in the BOD meeting:

## Director M

Considering the need for capital to finance these new projects, we can either borrow from the banks or issue more shares. I think that we should issue shares to finance our Capital requirement. Loan financing will not work for us, as the projects span 4 years in total. This will cause our shareholders to lose interest in us due to such high gearing. This is called the clientele effect.

## Director $\mathbf{N}$

I disagree with M. I think that currently our shares are under-priced after this stock market crash, as the prices of all shares have gone down. I think this is a pattern, and the share prices will now follow this pattern and keep going down. Even if we do go for share issue, we will have to issue our shares at discount. Only then investors will have incentive to buy our shares. My broker has told me that this phenomenon is called weak form of efficient market hypothesis. Since the market is currently weak, hence it is not the right time to issue shares; hence I suggest that we try Loan financing.

## Director 0

We have been approached by the Marketing Department of an investment bank, wanting to know if we are interested in Venture Capital Financing. They are offering us mezzanine debt with requisition of warrants attachment. However, I dare say, what is the need for us to finance all 3 projects? We have enough retained earnings to finance one project. There is a Modigliani and Miller theory which states that the company should undertake Capital investments only to the point where it has available funds. This is also called Hard Capital rationing.

## Director $P$

Reference to what N has said, I would suggest, that considering the current low prices, we should buy back our shares instead of issuing new ones from this loan finance which we obtain while our shares' prices are undervalued. This will be more beneficial for us than any project.

## Required:

You are asked to write a report addressed to the Board of Directors of Technocrats (Pvt.) Ltd. covering the follows:
(i) Analysis of statements made by the directors.
(ii) Factor which are important to arrive at a final option.
(iii) Recommendation regarding financing decision.
Q. 8 Haroon Public Ltd. Company is a manufacturer of paper products. The company wishes to expand its horizons by furthering its business outside Pakistan, and set up a manufacturing unit either in India or Bangladesh. According to the tax laws of the respective countries, these units will be treated as separate entities for the purpose of taxation.

In India the manufacturing unit is planned to be purchased from an existing Paper manufacture company in Jaipur. It is estimated that a bid of Indian Rupees (INR) 10 million will be successful. Additionally, the company would be required to invest INR 2 million in new machines and INR 4 million in working capital. The forecast pre-tax net cash flow (after tax savings from depreciation) in year one is of INR 2 million (at current prices) rising to INR 3 million (at current prices) in year two and subsequent years.

In Bangladesh, the manufacturing unit will be housed on land and building to be purchased at a cost of Takas 3.9 million. However, additional investment on the building of Takas 6.2 million will be required and expended upto the end of year one. Machines costing Takas 6.4 million will also be installed and operational by end of year 1 . CFO of the company estimates that the working capital requirement will be Takas 11.5 million from year one onwards at current prices.

Production will commence from year 2 and sales are projected at 2,000 units at a per unit price of Takas 20,000 each (at current prices). The variable costs are projected to be Takas 11,000 and fixed costs at Takas 5 million per annum at current prices. For the next four years sales are forecast at 2,500 units per year.

In addition a fixed royalty fee of PKR 750,000 p.a. will be payable to the parent company in Pakistan. Tax allowable depreciation in Bangladesh on machines is 25\% p.a. on WDV basis. No depreciation is allowed on other fixed assets.

Inflation rate for each of the next six years are expected to be 6\% for India, 3\% for Pakistan, and 5\% for Bangladesh.

Spot Exchange rates are as follows:

| PKR | 1.06 Takas |
| :--- | :--- |
| PKR | 0.76 INR |

(6)

Haroon's cost of equity is $15 \%$. Cost of borrowing funds in Pakistan is 10\% pa. After either proposed investment Haroon's gearing will be approximately $50 \%$ debt, $50 \%$ equity based on book value, and $30 \%$ debt, $70 \%$ equity based on market value.

The after tax realizable value of the investment in six years' time is expected to be approximately INR 14.5 million and Takas 16.2 million at price levels then ruling and working capital will be realized at the end of year seven.

Corporate tax is $30 \%$ in India, $35 \%$ in Pakistan, and $40 \%$ in Bangladesh. Assume that full bilateral tax treaties exist between all countries mentioned above.

## Required:

Evaluate which of the two units should be established by Haroon?

