

Paper 20 – Financial Analysis and Business Valuation

Caselet-1

The operating section begins with net income of \$84,000, which is then adjusted for noncash depreciation and amortization expense. Next, the gain on sale of assets is subtracted to zero it out (the proceeds will be reflected in net cash flows from investing activities). Finally, changes in current assets and liabilities are reflected as cash inflows (outflows) using the matrix presented above. Gould realized \$113,000 in net cash flow from operations in Year 2.

GOULD CORPORATION		
Statement of Cash Flows		
For Year Ended December 31, Year 2		(Amount in \$)
Net Income	84,000	
Add (deduct)		
Depreciation and amortization expense	35,000	
Gain on sale of assets	(5,000)	
Accounts receivable	(9,000)	
Inventories	6,000	
Prepaid expenses	3,000	
Accounts payable	(5,000)	
Accrued expenses	4,000	
Net cash flow from operating activities		113,000
Purchase of equipment	(70,000)	
Sale of equipment	7,000	
Net cash flows from investing activities		(63,000)
Mortgage payable	(150,000)	
Preferred stock	175,000	
Dividends	(51,000)	
Net cash flows from financing activities		(26,000)
Net increase in cash		24,000
Beginning cash		51,000
Ending cash		75,000

Note: Assets costing \$ 30,000 were purchased during Year 2 and were financed in whole by the manufacturer.

Net cash flows from investing activities include purchases (P) and sales (s) of plant assets. Purchases can be inferred from the T-account for plant assets (PP&E):

Plant Assets			
	350,000		
(p)	100,000	10,000	(s)
	440,000		

Analyse the different activities of cash flows with the help of the Plant Assets. How were the long term liability and equity accounts changed?

Caselet-2

For Excell Corporation, the net operating assets (NOA) are equal to total assets less non-operating assets, such as short term and long term investments in marketable securities. Operating liabilities are equal to the total liabilities less non-operating liabilities, such as notes payable to banks, long term indebtedness payable within one year and long-term indebtedness. Net operating assets (NOA) for Years 8 and 9 are computed as follows:

(Amounts in \$)		
	Year 8	Year 9
Cash	1,15,397	71,546
Accounts receivable, net	1,77,538	182,859
Inventories	2,04,362	256,838
Investments in unconsolidated subsidiaries	33,728	62,390
Property, plant and equipment, net	1,539,221	1,633,458
Goodwill	6,550	6,550
Accounts payable	(138,662)	(155,482)
Taxes payable	(24,370)	(13,256)
Pension and OPEB liabilities	(7,43,779)	(852,237)
Net operating Assets (NOA)	1,169,985	1,192,666

Investments in unconsolidated subsidiaries relate to equity method investments. These are presumed to be strategic investments and, therefore, are treated as operating assets. Likewise, goodwill is treated as operating so long as the investment is strategic in nature and is presumed as such unless facts dictate otherwise. Investments in discontinued operations (not present in this example) are treated as non-operating since the business unit no longer contributes to the operating profits of the company.

How Net Financial Obligations (NFO) are calculated by Excell Corporation?

Caselet-3

Aman Company is a small manufacturing company producing toys in Kolkata. The company has made sales for the amount of `10,000 for the year 2007-08, `12,000 for the year 2008-09, `15,000 for the year 2009-10, `16,000 for the year 2010-11, `18,000 for the year 2011-12 and `19,000 for the year 2012-13. The selling price per unit of output is `10 and the company has a capacity to produce 2,000 units p.a. presently. The company is now planning to expand its production capacity in terms of sales.

Based on the trend analysis, an estimation of sales is required for the year 2013-14. Also mention the capacity level whether to be maintained at the same level or to expand.

Let the straight line trend be represented by $y=a+bt$. We can use the trend analysis to fit a straight line trend with the help of statistics as follows —

Fitting of Straight Line Trend

Year Y	Sales Value (` '000)	$t = \frac{\text{Year} - (2009 - 10) \cdot 5}{\frac{1}{2}}$	t^2	yt	Trend Value y_e
2007-08	10	-5	25	-50	10.430
2008-09	12	-3	9	-36	12.258
2009-10	15	-1	1	-15	14.086
2010-11	16	1	1	16	15.914
2011-12	18	3	9	54	17.742
2012-13	19	5	25	95	19.570
Total	$\sum y = 90$	$\sum t = 0$	$\sum t^2 = 70$	$\sum yt = 64$	$\sum y_e = 90$

Normal equations are —

$$\sum y = na + b\sum t \quad \dots\dots(1)$$

$$\sum yt = a\sum t + b\sum t^2 \quad \dots\dots(2)$$

From equation (1), $90 = 6a + b.0$ or $a=15$

From equation (2), $64 = a.0 + b.70$ or $b = 0.914$

The trend equation is $y = 15 + 0.914t$ with origin at the mid-point of 2009-10 and 2010-11 and t unit = $\frac{1}{2}$ year.

The trend value of 2013-14, $y_e = 15 + 0.914 \times (7)$ as $t = 7 = 15 + 6.398 = 21.398$ (` '000) or `21,398.

Based on the above analysis, it is clear that the company has a sales potential of `21,398, i.e. it has to produce more than 2,000 units p.a. to meet the increased demand. The company should now consider the plan to expand the capacity of production.

Caselet-4

Financial Statement Ratios for Dell (for the year 2005)

Liquidity

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$16,897}{\$14,136} = 1.20$$

$$\text{Acid-test ratio} = \frac{\text{Cash} + \text{Cash equivalents} + \text{Marketable securities} + \text{Accounts receivable}}{\text{Current liabilities}}$$

$$= \frac{\$4,747 + \$5,060 + \$4,414}{\$14,136} = 1.01$$

$$\begin{aligned} \text{Collection period} &= \frac{\text{Average accounts receivable}}{\text{Sales} / 360} \\ &= \frac{(\$4,414 + \$3,635) / 2}{\$49,205 / 360} = 29.45 \text{ days} \end{aligned}$$

$$\begin{aligned}\text{Days to sell inventory} &= \frac{\text{Average inventory}}{\text{Cost of sales} / 360} \\ &= \frac{(\$459 + \$327) / 2}{\$40,190 / 360} = 3.52 \text{ days}\end{aligned}$$

Capital Structure and Solvency

$$\begin{aligned}\text{Total debt to equity} &= \frac{\text{Total liabilities}}{\text{Shareholders' equity}} \\ &= \frac{\$16,730}{\$6,485} = 2.58\end{aligned}$$

$$\begin{aligned}\text{Long-term debt to equity} &= \frac{\text{Long-term liabilities}}{\text{Shareholders' equity}} \\ &= \frac{(\$505 + \$2,089)}{\$6,485} = 0.40\end{aligned}$$

$$\begin{aligned}\text{Times interest earned} &= \frac{\text{Income before income taxes and interest expense}}{\text{Interest expense}} \\ &= \frac{(\$4,445 + \$16)}{\$16} = 278.8\end{aligned}$$

Based on the above data, analyse the credit position of the company.

Also the current liquidity position of Dell needs to be specified as the current ratio is 1.20 and the acid-test ratio is 1.01.

Caselet-5

Ryap Ltd. is a manufacturing concern which facing a problem of labour agitation in several times for last two years. Moreover the company followed the production procedure which is very outdated. As a result, the overhead costs are increased day by day to improve the sales volume. The financial records of the company reveals that the working capital to total assets is 15%, but the retained earnings to the total assets is 20% which is little better than the previous ratio, the EBIT to total assets ratio is comes at 30%, the market value of equity shares to book value of total debts is 120% and the sales to total assets is 2%. The company claimed that it is neither a bankrupt nor a failed company.

As per the informations available, whether the prediction of distress which the company measure is correct? If not, what is the current distress prediction as per Altman (1968) model?

Question No 6

Swastik Developer, a leading promoter and land developer, intends to construct luxury apartments

this year or a year hence. The company has already acquired a vacant land in a residential area. Mr. Sandip, the technical director, along with Mr. Khan, the financial director, has worked out the following data to decide on when to construct the apartments:

Current interest rate = 12%

Current value of an apartment = ₹ 40 lakh

Value of an apartment 'a year from now:

₹ 52 lakh under favorable conditions;

₹ 32 lakh under unfavorable conditions

Construction costs (this year as well as next year):

For a 8-unit building = ₹ 180 lakh;

For a 12-unit building = ₹ 240 lakh.

You are required to estimate the value of land using option pricing model approach and decide whether Sumangal Developer has to construct in the current year or next year, a 8-unit building or a 12-unit building.

Question No 7

Mr. R. N. Swaminathan is the chief executive of PACL Ltd. He thinks that shareholders always look for the earnings per share. Therefore, he considers maximization of the earning per share (EPS) as his Company's objective. His Company's current net profits are ₹ 80 lakh and EPS is ₹ 4. The current market price is ₹ 42. He wants to buy another firm which has current income of ₹ 15.75 lakh, EPS of ₹ 10.50 and the market price per share of ₹ 85.

What is the maximum exchange ratio which Mr. R. N. Swaminathan should offer so that he could keep EPS at the current level? If Mr. R. N. Swaminathan borrows funds at 15 percent rate of interest and buys out the other Company by paying cash, how much should he offer to maintain his EPS? Assume a tax rate of 36%.

Question No. 8

Theta Ltd is a privately held company that has been doing wonderfully well. It has bagged prestigious contracts for supply of electrical transformers from several electricity boards in India. The current level of profitability of Theta Ltd is ₹ 12 per share. In order to execute the orders of the electricity boards, it needs to mobilize capital from the capital markets by issuing fresh shares. The merchant bankers appointed for the purpose of mobilizing fresh capital have gathered information about the P/E ratios of major companies in order to price the issue of shares.

The P/E multiples of 4 major firms (based on the latest prices and expected further earnings) in the same line of business of electrical goods, as below:

P/E multiple	Firm A	firm B	Firm C	Firm D
	12.2	14.4	15.5	20.6

The management of the company expects that on the enhanced capital of the firm and successful execution on orders on handle expected earnings level would rise from current level of ₹ 14 per share to ₹ 16 per share, which is not disputed.

The chairman of theta Ltd thought that his firm is in no way inferior the market leader Firm D and therefore must command the same valuation from the market. On the other hand, CFO of the firm thought that the firm being relatively unknown to the potential investors it would be able to attract valuation no greater than that of Firm A.

The merchant banker caught in the dilemma of pricing the issue tried to resolve by proposing that the price of the issue be done on the basis of average of the valuation for the industry and regarded the four firms as adequate representative sample.

Find out at what price the public offer of Theta Ltd be made according to the (a) Chairman, (b) CFO, and (c) Merchant bankers?

Question No. 9

The Directors of Shalimar Private Ltd are planning to sell the Company. For this purpose they want to put a value on the equity share of the Company using the methods which a prospective purchaser might apply.

The following information should be considered in valuing the share under each method, commenting briefly on each method adopted –

1. Balance Sheet as on 31st December 2012

Liabilities	`	Assets	`
20,000 Equity Shares of ` 10 each fully paid	2,00,000	Fixed Assets – Net Block	
Revenue Reserves	5,95,000	Land & Building	5,00,000
Secured Loan (Secured on Land & Building)	1,50,000	Plant & Machinery	2,75,000
Trade & Expense Creditor	1,35,000	Motor Vehicle	55,000
Provision for Taxation	45,000	Stock in Trade	1,33,000
		Sundry Debtors	1,45,000
		Cash at Bank	15,000
		Preliminary expenses	2,000
	11,25,000		11,25,000

2. Profit / Dividend record: The Profit record after tax and interest but before dividends over the last five years have been as follows:

Year	2008	2009	2010	2011	2012
Profit	` 80,000	` 75,000	` 95,000	` 80,000	` 85,000

The average dividend has been ` 30,000 (gross) for the last ten years.

- The operating budget shows that estimated after tax profit for the next year will be ` 85,000 and thereafter it is estimated that this will increase by 5% p.a. over the next four years.
- In the light of recent developments in the field of financial reporting, the Company has had its Fixed Assets valued by an independent expert whose report discloses the following values – Land and Building – ` 6,10,000, Plant & Machinery – ` 2,88,000, Motor Vehicles – ` 1,02,000.
- A study of three public companies in the same market as Shalimar Private Ltd shows that the average dividend yield and price earning ratio of these over last three years have been –

Year	Ankit Ltd		Guidence Ltd		Ostern Ltd	
2010	17.00	8.00	17.00	8.50	16.50	9.00
2011	17.00	8.00	15.00	9.00	17.00	10.00

2012	17.00	9.00	18.00	10.00	17.50	11.50
Average	17.00	8.33	16.70	9.17	17.00	10.17

6. One of the Directors has indicated that after tax cost of capital is now 17½%. The estimated net cash flow of the Company after taking into consideration taxation and capital expenditure over the next five years in order to achieve / and as a result of, the five years profit plan, are as follows:

Year	2013	2014	2015	2016	2017
Profit	` 1,00,000	` 1,20,000	` 1,40,000	` 10,000	` 1,50,000

Another Director is of the view that profitability be measured at 12½% on Tangible Capital and 17½% on Intangible Capital.

Question No. 10

Nicco Parks Limited owns an entertainment park and contemplating an expansion by adding few more rides in the park. Their current balance sheet on book values and market values is given:

Balance Sheet (`)	Book Value	Market Value
Fixed Assets	110.00	149.17
Net Current Assets	7.50	7.50
Total	117.50	156.67
Equity capital	94.00	133.17
Debt	23.50	23.50
Total	117.50	156.67

Based on market weights the firm has a debt ratio of 15% and beta of its equity is 1.20. The risk free rate is 6% while market risk premium is 8%. Corporate tax applicable is 35% and post-tax cost of its debt is 9%. The depreciation charged by the firm is 5.5% of the net fixed assets. The capital expenditure plan aggregating `135 crore spanning next 4 years is as below:

Year	1	2	3	4
Addition during the year (` Crore)	20.00	30.00	35.00	50.00

Besides capital expenditure the firm would have nominal working capital at 5% of the total revenue.

The park earns its revenue from entry fee, tickets for rides, rentals from the few kiosks in the park, and the catering. The growth rates and the first year projections net entertainment tax are projected as below:

Assumptions	Growth % for next 4 years	First year projection (` in crore)
Revenue		
Gate Money	10%	5%
Fee from the Rids	30%	60.00
Rentals from kiosk owners	2%	3.00

Food (% of fee from ride)	65%	39.00
Cash Expenses	60%*	
(of revenue and to decline by 2% every year till the 4 th year)		

After four years the free cash flow to the firm are expected to grow at 6% annually forever. Find out the value of the firm and its equity.