

NPTEL

Course Name: Security Analysis and Portfolio Management

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Session # 9 & 10: Financial Statement Analysis

Q.1: What is the purpose of financial statement analysis (FSA) and what are the major techniques of FSA?

Ans.: Financial statement analysis (FSA) is the analysis of major financial statements like Income Statement, Balance Sheet and Cash flow statement to measure the strength and weakness of a business entity depending upon the requirement of an user of financial statement. Essentially, FSA helps in

- Evaluating past performance and financial position
- Predicting future performance
- Estimating risk, cost of capital and capitalization rate
- Estimating appropriate valuation multiples

The major techniques of financial statement analysis are:

- Trend Analysis
- Comparative analysis (comparison with prior year performance/ comparison with peer group companies)
- Common size statement
- Ratio analysis with focus on:
 - Profitability
 - Efficiency
 - Liquidity
 - Solvency
 - Capital market standing

Q.2: Prepare common size income statement and balance sheet of ABC Limited with the help of the following tables.

**ABC limited
Income Statement**

	2008-09 (Rs. Crore)	2009-10 (Rs. Crore)
Net Sales	350	410
Expenditure:		
Raw Materials	120	130
Power & Fuel Cost	80	95
Employee Cost	40	50
Other Manufacturing Expenses	17	24
Selling and Administration Expenses	11	14

Total Expenditure	268	313
Operating Profit (PBDIT)	82	97
Interest	10	10
PBDT	72	87
Depreciation	24	28
Profit Before Tax	48	59
Tax	14.4	17.7
Reported Net Profit	33.6	41.3

Balance Sheet

SOURCES OF FUNDS :	2008-09 (Rs. Crore)	2009-10 (Rs. Crore)
Share Capital (Face Value: Rs.10)	40	40
Reserves Total	95	135
Total Shareholders Funds	135	140
Secured Loans	90	85
Unsecured Loans	35	41
Total Debt	125	126
Current Liabilities and Provisions		
Current Liabilities	45	56
Provisions	30	48
Total Current Liabilities	75	104
Total Liabilities	335	370
APPLICATION OF FUNDS :		
Gross Block	90	110
Less : Accumulated Depreciation	22	29
Net Block	68	81
Capital Work in Progress	12	14
Investments	70	78
Current Assets, Loans & Advances		
Inventories	75	57
Sundry Debtors	56	87
Cash and Bank	38	30
Loans and Advances	28	37
Total Current Assets	197	211
Total Assets	335	370

Ans.:

Common Size Income Statement of ABC Limited

Net Sales	100.00	100.00
Expenditure:		
Raw Materials	34.29	31.71
Power & Fuel Cost	22.86	23.17
Employee Cost	11.43	12.20
Other Manufacturing Expenses	4.86	5.85
Selling and Administration Expenses	3.14	3.41
Total Expenditure	76.57	76.34

Operating Profit (PBDIT)	23.43	23.66
Interest	2.86	2.44
PBDT	20.57	21.22
Depreciation	6.86	6.83
Profit Before Tax	13.71	14.39
Tax	4.11	4.32
Reported Net Profit	9.60	10.07

Common Size Balance Sheet

SOURCES OF FUNDS :	2008-09	2009-10
Share Capital	11.94	10.81
Reserves Total	28.36	36.49
Total Shareholders Funds	40.30	37.84
Secured Loans	26.87	22.97
Unsecured Loans	10.45	11.08
Total Debt	37.31	34.05
Current Liabilities and Provisions		
Current Liabilities	13.43	15.14
Provisions	8.96	12.97
Total Current Liabilities	22.39	28.11
Total Liabilities	100.00	100.00
APPLICATION OF FUNDS :		
Gross Block	26.87	29.73
Less : Accumulated Depreciation	6.57	7.84
Net Block	20.30	21.89
Capital Work in Progress	3.58	3.78
Investments	20.90	21.08
Current Assets, Loans & Advances		
Inventories	22.39	15.41
Sundry Debtors	16.72	23.51
Cash and Bank	11.34	8.11
Loans and Advances	8.36	10.00
Total Current Assets	58.81	57.03
Total Assets	100.00	100.00

Q.3: Refer information given in Question # 3 above and find profitability and asset turnover ratios of ABC Limited

Ans.

Ratio/ Measure	Explanation/ Formula	2008-09	2009-10
<i>Profitability related to Sales (or income)</i>			
Operating margin (%)	(Operating profit / Sales)*100	23.43	23.66
Net profit margin (%)	(Net profit / Sales)*100	9.60	10.07
<i>Profitability related to investment</i>			

Return on total assets (%)	(PBIT to Total Assets)*100	17.31	18.65
Return on Equity	(PAT / Net Worth)*100	24.89	29.50
Earnings per share (Rs.)	PAT / Number of Equity Shares	8.40	10.33
<i>Asset Turnover Ratios</i>			
Total Assets Turnover (in times)	Sales / Average Total Assets	NA*	1.16
Current Assets Turnover	Sales / Average Current Assets	NA*	2.01

* Not available since data for 2007-08 are required.

Q.4. Find out liquidity i.e. short term solvency ratios (current ratio, quick ratio), long term solvency ratios (debt-equity ratio, debt to total assets, interest coverage ratio) of ABC Limited.

Ans.:

Ratio/ Measure	Explanation/ Formula	2008-09	2009-10
<i>Liquidity or Short term solvency:</i>			
Current Ratio	Current Assets/ Current Liabilities	2.63	3.77
Quick Ratio	Current Assets less Inventory/ Current Liabilities	1.63	1.48
<i>Long term solvency:</i>			
Debt – Equity Ratio (times)	Long term debt / Net Worth	0.93	0.90
Debt to Total Assets (%)	(Total Debt i.e. Long term debt + current liabilities and provisions / Total Assets) * 100	59.70	62.16
Interest coverage ratio (times)	PBIT / Interest	5.8	6.9

Q.5: a. Find out inventory turnover ratio, inventory conversion period debtor turnover ratio and average collection period of ABC Limited.

Ans.:

Ratio/ Measure	Explanation/ Formula	2008-09	2009-10
Inventory turnover ratio (ITR)	Cost of goods sold / Average inventory*	N.A.**	6.21
Inventory conversion period (days)	365 / ITR	N.A.**	59
Debtor turnover ratio (DTR)	Sales / Average Debtors	N.A.**	5.74
Average Collection Period (days)	365 / DTR	N.A.**	64

* Instead of cost of goods sold, sales is taken as proxy for the same for calculating this ratio.

** Since 2007-08 data are not available, this ratio is not found for 2008-09.

Q.6. With the help of additional information as below, find out Dividend yield, P/E ratio and P/B ratio of ABC limited

Dividend declared and paid during 2009-10: Rs.5.00 per share

Average market price of share of ABC Limited: Rs.58

Ans.:

Dividend yield (%) = Dividend per share / Average market price per share * 100 = 8.62%

P/E ratio = Average market price / EPS = 5.62 times

P/B ratio = Average market price / book value per share

Book value per share = Net worth / number of equity shares = 140 / 4 = Rs.35

Hence, P/B ratio = Rs.58/Rs.35 = 1.67 times.