FIN2704&X/FIN2004&X

Tutorial 1 :

Introduction & Overview of Financial Management and Financial Statement Analysis

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#1:

Evaluate the following statement : Managers should not focus on the current stock value because doing so will lead to an overemphasis on short-term profits at the expense of long-term profits

The goal of financial management is to maximize shareholders' wealth. In other words, the manager should focus on the current stock value. The current stock value is equal to the present value of future cash flows (i.e., short term and long-term cash flows. The profit is related to cash flow. As such the above statement is false

#2:

- Suppose you own stock in a company.
- The current price per share is $25. Another company has just announced that it wants to buy your company and will pay $35 per share to acquire all the outstanding stock.
- Your company's management immediately begins fighting off this hostile bid.
- Is the management acting in the shareholders' best interest? Why or why not?

#2:

Management is acting in the best interest of the shareholders by rejecting the offer by the bidder:

- If management believes that it can improve the profitability of the firm so that the share price will exceed $35 per share; or
- If management believes that this bidder or other unidentified bidders will pay more than $35 per share to acquire the company.

Management is not acting in the best interest of the shareholders by rejecting the offer by the bidder:

- If the current management cannot increase the value of the firm beyond the bid price, and
- If no other bidder offering high price; or
- If the motive is to protect the jobs of the current managers since the management will be replaced when the corporation is acquired.

#3:

Dahlia Industries had the following operating results for 2009:
sales = $22,800;
cost of goods sold = $16,050;
depreciation expense = $4,050;
interest expense = $1,830;
dividends paid = $1,300.

At the beginning of the year, net fixed assets were $13,650, current assets were $4,800, and current liabilities were $2,700.

At the end of the year, net fixed asset $16,800, current assets were $5,930, and current liabilities were $3,150. The tax rate for 2009 was 34 percent.

a. What is net income for 2009?
b. What is the operating cash flow for 2009?
c. What is the cash flow from assets for 2009? Is this possible? Explain.
d. If no new debt was issued during the year, what is the cash flow to creditors? What is the cash flow to stockholders? Explain and interpret the positive and negative signs of your answers in (a) through (d).

#3:

a. What is net income for 2009?

Income Statement	
Sales	$22,800
Cost of goods sold	(16,050)
Depreciation	(4,050)
EBIT	$ 2,700
Interest	(1,830)
Taxable income	$ 870
Taxes (34%)	(296)
Net income	$ 574

b. What is the operating cash flow for 2009?

OCF = EBIT + Depreciation – (EBIT*tax rate)
= $2700 + $4,050 – $918 = $5,832

c. What is the cash flow from assets for 2009? Is this possible? Explain.

CFFA* = OCF – Change in NOWC – Net capital spending

NOWC = Current assets – Non-interest bearing Current liabilities

Change in NOWC = $NOWC_{end} - NOWC_{beg}$

$= (CA_{end} - CL_{end}) - (CA_{beg} - CL_{beg})$

= ($5,930 – 3,150) – ($4,800 – 2,700)

= $2,780 – 2,100 = $680;

assuming that the current liabilities are non-interest bearing

Net capital spending = net FA_{end} – net FA_{beg} + Depreciation

= $16,800 – 13,650 + 4,050 = $7,200

CFFA* = OCF – Change in NOWC – Net capital spending

= $5,832 – 680 – 7,200 = –$2,048 (is this possible?)

CFFA* is negative because the firm invested heavily in both fixed assets and net working capital resulting in negative CFFA

d. If no new debt was issued during the year, **what is the cash flow to creditors? What is the cash flow to stockholders?** Explain and interpret the positive and negative signs of your answers in (a) through (d).

Cash flow to creditors = Interest – Net new borrowing (LT-Debt and Notes Payable)

= \$1,830 – 0 = \$1,830

Cash flow to stockholders = Dividends – Net new equity raised

= 1,300 – Net new equity raised

As per your recommended textbook,

CFFA = OCF – Change in NWC – Net capital spending

CFFA = Cash flow to stockholders + Cash flow to creditors

CFFA* = CFFA – interest tax shield

-\$2,048 = + \$1,830 + (\$1,300– Net new equity raised) – \$1,830(0.34)

$\Rightarrow$ New equity raised = \$4,555.80

The cash flow to stockholders = \$1,300 - \$4,555.80 = -\$3255.8

The firm had positive earnings in an accounting sense (NI > 0) and had positive cash flow from operations.

The firm invested $680 in new net working capital and $7,200 in new fixed assets. The firm had to raise funds from its stakeholders to support this new investment.

In this problem, even though net income and OCF are positive, the firm invested heavily in both fixed assets and net working capital resulting in negative CFFA; it had to raise funds from its stockholders and creditors to make these investments. Given in the question (d), no new debt was raised during the year, the firm accomplished this by raising $4,555.80 in the form of new equity.

After paying out $1,300 of this in the form of dividends to shareholders and $1,830 in the form of interest to creditors, $1,425.80 was left to meet the firm's cash flow needs for investment.

#4:

The Ashwood Company has long-term debt ratio of 0.45 and a current ratio of 1.25. Current liabilities are $875, sales are $5,780, profit margin is 9.5 percent, and ROE is 18.5 percent. What is the amount of the firm's net fixed assets?

#4:

The solution to this problem requires a number of steps.
First, remember that CA + NFA = TA. So, if we find the CA and the TA, we can solve for NFA. Using the numbers given for the current ratio and the current liabilities, we solve for CA:

CR = CA / CL
CA = CR(CL) = 1.25($875) = $1,093.75

To find the total assets, we must first find the total debt and equity from the information given. So, we find the sales using the profit margin:

PM = NI / Sales
NI = PM(Sales) = 0.095($5,780) = $549.10

We now use the net income figure as an input into ROE to find the total equity:

ROE = NI / TE
TE = NI / ROE = $549.10 / 0.185 = $2,968.11

Next, we need to find the long-term debt. The long-term debt ratio is:

Long-term debt ratio = 0.45 = LTD / (LTD + TE)

Inverting both sides gives:

1/0.45 = (LTD + TE) / LTD = 1 + (TE / LTD)

Substituting the total equity into the equation and solving for long-term debt gives the following:

2.222 = 1 + ($2,968.11 / LTD)
LTD = $2,968.11 / 1.222 = $2,428.45

Now, we can find the total debt of the company:

TD = CL + LTD = $875 + 2,428.45 = $3,303.45

And, with the total debt, we can find the TD&E, which is equal to TA:

TA = TD + TE = $3,303.45 + 2,968.11 = $6,271.56

And finally, we are ready to solve the balance sheet identity as:

NFA = TA – CA = $6,271.56 – 1,093.75 = $5,177.81

#5

Some recent financial statements for Smolira Golf Corp. follow.

SMOLIRA GOLF
2008 and 2009 Balance Sheets

Assets	2008	2009	Liabilities and Owners' Equity	2008	2009
Current assets			Current liabilities		
Cash	$ 21,860	$ 22,050	Accounts payable	$ 19,320	$ 22,850
Accounts receivable	11,316	13,850	Notes payable	10,000	9,000
Inventory	23,084	24,650	Other	9,643	11,385
Total	$ 56,260	$ 60,550	Total	$ 38,963	$ 43,235
			Long-term debt	$ 75,000	$ 85,000
			Owners' equity		
			Common stock and paid-in surplus	$ 25,000	$ 25,000
Fixed assets			Accumulated retained earnings	151,365	167,840
Net plant and equipment	$ 234,068	$ 260,525	Total	$ 176,365	$ 192,840
Total assets	$ 290,328	$ 321,075	Total liabilities and owners' equity	$ 290,328	$ 321,075

SMOLIRA GOLF, Inc. 2009 Income Statement		
Sales		$305,830
Costs of goods sold		210,935
Depreciation		26,850
Earnings before interest and taxes		$ 68,045
Interest paid		11,930
Taxable Income		$ 56,115
Taxes (35%)		19,640
Net income		$ 36,475
Dividends	$20,000	
Retained earnings	16,475	

Find the following financial ratios for Smolira Golf Corp. (use year-end figures rather than average values where appropriate):

Short-term solvency ratios:

a. Current ratio = Current assets / Current liabilities

Current ratio 2008 = $56,260 / $38,963 = 1.44 times

Current ratio 2009 = $60,550 / $43,235 = 1.40 times

b. Quick ratio = (Current assets – Inventory) / Current liabilities

Quick ratio 2008 = ($56,260 – 23,084) / $38,963 = 0.85 times

Quick ratio 2009 = ($60,550 – 24,650) / $43,235 = 0.83 times

c. Cash ratio = Cash / Current liabilities

Cash ratio 2008 = $21,860 / $38,963 = 0.56 times

Cash ratio 2009 = $22,050 / $43,235 = 0.51 times

Asset utilization ratios: 2009

d. Total asset turnover = Sales / Total assets

Total asset turnover = $305,830 / $321,075 = 0.95 times

e. Inventory turnover = Cost of goods sold / Inventory

Inventory turnover = $210,935 / $24,650 = 8.56 times

f. Receivables turnover= Sales / Accounts receivable

Receivables turnover = $305,830 / $13,850 = 22.08 times

In the exam, unless otherwise stated, to calculate the turnover ratios, please use average figures in the denominators.

Long-term solvency ratios:

g. Total debt ratio = (Total assets – Total equity) / Total assets
Total debt ratio 2008 = ($290,328 – 176,365) / $290,328 = 0.39
Total debt ratio 2009 = ($321,075 – 192,840) / $321,075 = 0.40
h. Debt-equity ratio = Total debt / Total equity
Debt-equity ratio 2008 = ($38,963 + 75,000) / $176,365 = 0.65
Debt-equity ratio 2009 = ($43,235 + 85,000) / $192,840 = 0.66
i. Equity multiplier = 1 + D/E
Equity multiplier 2008 = 1 + 0.65 = 1.65
Equity multiplier 2009 = 1 + 0.66 = 1.66
j. Times interest earned = EBIT / Interest
Times interest earned = $68,045 / $11,930 = 5.70 times
k. Cash coverage ratio = (EBIT + Depreciation) / Interest
Cash coverage ratio = ($68,045 + 26,850) / $11,930 = 7.95 times

Profitability ratios: 2009

l. Profit margin = Net income / Sales
Profit margin = $36,475 / $305,830 = 0.1193 or 11.93%
m. Return on assets = Net income / Total assets
Return on assets = $36,475 / $321,075 = 0.1136 or 11.36%
n. Return on equity = Net income / Total equity
Return on equity = $36,475 / $192,840 = 0.1891 or 18.91%

#6:

Calculate Smolira Golf Corp's 2009 ROE by using the Extended Du Pont Equation. Clearly show all parts of the Du Pont Equation values using answers from #5.

PM = 11.9266% (part l)
TATO = 0.9525 times (part d)
EM = 1.66 (part i)
→ ROE = PM*TATO*EM = 0.119266*0.9525*1.66 = 18.91% (part n)

#7:

Smolira Gold Corp uses Accounts Payable to fund $5,000 increase in Inventory in 2009. Without using any calculations, what is the resultant impact to Current Ratio for 2009 if AP and Inventory Increase, Decrease or Stay the same?

Current ratio for 2009 = 1.4 which is > 1 (refer to #5-part a)

Decrease.
When CR is >1, increase of the same magnitude to CA and CL will result in CR falling.
Decrease in CA and CL of the same magnitude will result in CR rising.

When CR is <1, increase of the same magnitude to CA and CL will result in CR rising. The reverse is true.

Manipulation of Current Ratio

Ex : Current Ratio > 1

	Before	Change	After
CA	$120	-50	$70
CL	$100	-50	$50
Current Ratio	1.2x		1.4x

Pay some A/P with available cash

Manipulation of Current Ratio

Ex : Current Ratio < 1

	Before	Change	After
CA	$50	+50	$100
CL	$80	+50	$130
Current Ratio	0.625x		0.769x

Buy more inventory with credit