BOSTON COLLEGE

S U M M E R S E S S I O N

MFIN102201, Fundamental of Finance
Boston College Summer Session 2018
Monday and Wednesday 6:00 PM-9:15 PM

Problem Set 2.

You must read Chapter 3 and 4 before attempting to solve the problem set. The content from the class presentation will not be sufficient to answer the problem set. All questions were selected from the before mentioned chapters.

1) Suppose that Home Depot borrows $500 million by issuing new long-term bonds. It places $100 million of the proceeds in the bank and uses $400 million to buy new machinery. What items of the balance sheet would change? Would shareholders' equity change? Use the balance sheet provided in page 57 (it's the same we used in class)

2) Would the following activities increase or decrease the firm's cash balance? **Explain**.
   a. Inventories are increased.
   b. The firm reduces its accounts payable.
   c. The firm issues additional common stock.
   d. The firm buys new equipment.

3) What is the difference between market and book values?

4) Why does accounting income differ from cash flow?

5) Shares of Notung Cutlery Corp. closed 2013 at $75 per share. Notung had 14.5 million shares outstanding. The book value of equity was $610 million. Compute Notung's market capitalization, market value added, and market to-book ratio.

6) Roman Holidays Inc. had operating income of $30 million on a start-of-year total capitalization of $188 million. Its cost of capital was 11.5%. What was its EVA?

7) Even within an industry, there can be a considerable difference in the type of business that companies do, and this shows up in their financial ratios. Here are some data on assets, sales, and income for two companies. Calculate for each company the asset turnover, the operating profit margin, and the return on assets. In each case the values are expressed as a percentage of sales. One of these two companies is Walmart. The other is Tiffany. Which one is which? Explain.

	Company A	Company B
Sales	100	100
Assets	41.2	109.6
Net income + after-tax interest	4.1	12.0

8) Financial Ratios. Use the following financial statements for Phone Corporation to calculate:

a. Return on equity
b. Return on assets
c. Return on capital
d. Days in inventory
e. Inventory turnover
f. Average collection period
g. Operating profit margin
h. Long-term debt ratio
i. Total debt ratio
j. Times interest earned
k. Cash coverage ratio
l. Current ratio
m. Quick ratio

INCOME STATEMENT (Figures in $ millions)	
Net sales	13,193
Cost of goods sold	4,060
Other expenses	4,049
Depreciation	2,518
Earnings before interest and taxes (EBIT)	2,566
Interest expense	685
Income before tax	1,881
Taxes (at 35%)	658
Net income	1,223
Dividends	856

BALANCE SHEET (Figures in $ millions)	End of Year	Start of Year
Assets		
Cash and marketable securities	$ 89	$ 158
Receivables	2,382	2,490
Inventories	187	238
Other current assets	867	932
Total current assets	$ 3,525	$ 3,818
Net property, plant, and equipment	19,973	19,915
Other long-term assets	4,216	3,770
Total assets	$27,714	$27,503
Liabilities and shareholders' equity		
Payables	$ 2,564	$ 3,040
Short-term debt	1,419	1,573
Other current liabilities	811	787
Total current liabilities	$ 4,794	$ 5,400
Long-term debt and leases	7,018	6,833
Other long-term liabilities	6,178	6,149
Shareholders' equity	9,724	9,121
Total liabilities and shareholders' equity	$27,714	$27,503

Bonus question: If you answer this correctly, you get 10 additional points in your lowest score problem set. All problem sets are graded in a 0-100 point scale.

Could you provide an example of a company that generates high cash-flows but is unprofitable (doesn't have to be a real company)? **Be specific regarding why (operationally) this could happen.**

Could you provide an example of a company that generates high profits but little to none cash-flow (doesn't have to be a real company)? **Be specific regarding why (operationally) this could happen.**