BUS312: Introduction to Corporate Finance

Assignment #3

Question #1

Mary Kelly, of Mary's Ski Chalet is attempting to plan a monthly cash-budget for the coming year but is having difficulty determining her expected cash balances due the seasonality of her sales. She has been able to able to compile the following projections and data for 2008. Mary has no required minimum cash balance.

Mary's Ski Chalet

Projected Sales (thousands)				*Beginning Balances: Dec. 31, 2007 (in thousands)*	
Jan.	$190	July	$30	Accounts Receivable	$184
Feb.	150	Aug.	55	Accounts Payable	173
Mar.	110	Sept.	90	Cash	65
Apr.	70	Oct.	105	Inventory	50
May	70	Nov.	165	Equity	457
June	30	Dec.	210	Net Fixed Assets	331

- All collections and payments are made on a 30-day basis.
- Ignore tax in this problem.
- 12 percent of all sales are paid for in cash.
- Cost of goods sold is 76 percent of sales.
- Selling, general and administrative expenses (other than lease expense) are 20% of sales (paid in the month that sales are made).
- Purchases are 100 percent of costs of goods sold.
- Lease expense is $18,000 for the year (paid monthly).
- Depreciation expense is for $12,000 for the year.

Prepare a cash-budget for Ski Chalet for 2008 on a monthly basis.

Question #2.

For Mary's Ski Chalet, (from the above question) prepare a 2008 forecasted income statement and accounting balance sheet for Ms. Kelly using the information provided. Ignore tax in this problem.

Question #3

Find the invested capital at Dec. 31, 2007 as trade capital plus plant/property/equipment for Mary's Ski Chalet. Using this result, find the predicted ROIC (b.o.p.) before lease payment but after depreciation for 2008 (no tax in this problem).

Question #4

For the fiscal year 2006, ABC had a degree of operating leverage of 1.8 and an EBITDA margin of 20%. For 2006 break-even dollar sales was $1,300,000. What was ABC's EBITDA? What was ABC's dollar sales for 2006? What is contribution margin per dollar sales? What are fixed costs?

Question #5

It is now Dec. 31, 200X. ABC Co. Ltd. expects sales in the upcoming year of $2.8, 3.0, or $3.2 million dollars. On the basis of the following assumed facts, prepare projected income statements and balance sheets (accounting) for Dec. 31, 200X+1 for each of these possibilities. ABC plans to meet any required financing with additional bank borrowing (short-term debt). Presume that this borrowing takes place at the *beginning* of the year. (Note that additional interest for the year must be paid). For each of the above three sales-scenarios, how much must ABC borrow?

This problem requires that you resolve circular references in a spreadsheet. The circularity arises because incremental borrowing is at the *beginning* of the year, and therefore, interest on the income statement depends upon incremental borrowing, but incremental borrowing depends upon net income which in turn depend upon incremental borrowing, etc., etc. In EXCEL, make sure that there is an "x" beside "iteration." in the "calculation" dialog box of "options" in the "tools" menu.

Assumed facts:

Cash = 4 percent of sales,

Accounts Receivable = 60 day (average) collection period based on annual sales and 365 days in a year,

Inventory turnover of 8 times per year,

Accounts payable = 8.33 percent of cost of goods sold,

Bank-borrowing (i.e., short-term debt) = $50,000 now, can borrow up to $600,000 (total) from the bank (interest on existing bank borrowing and new bank borrowing is 10% per annum).

Long-term bonds = $300,000 (coupon rate is 12% per annum paid annually, (principal reduction payment of $75,000 is due at year-end 200X+1),

Common Stock = $100,000 now (no repurchase or new issues planned),

Retained Earnings = $200,000 now,

Dividends = none expected,

Cost of goods sold = 65% of sales,

Income taxes = 40% of before tax profit,

General and Administrative expenses = $300,000 per annum,

Net capital expenditures are expected to be $350,000 in 200X+1 (this capital expenditure is planned to be made at the beginning of the year),

Net Fixed assets are now equal to $500,000 (depreciation is taken at 10% of net fixed assets).