Finance 4310
Class Problem

Percent of Sales Technique

Percent of Sales Technique Homework

XYZ Company
Income Statement
For the Year Ended 12/31/xxxx

Sales	$140,000
Cost of Goods Sold	117,000
Gross Profit	23,000
Operating Expenses	12,830
EBIT	10,170
Interest Expense	4,610
EBT	5,560
Taxes @ 39%	2,168
Net Income	3,392
Dividend	1,018
Addition to Retained Earnings	$2,374

XYZ Company
Balance Sheet
12/31/xxxx

Assets

Current Assets	
Cash	$7,500
Accounts Receivable	12,100
Inventory	10,400
Prepaid Items	5,900
Other CA	4,300
Total Current Assets	$40,200
Net Plant & Equipment	82,300
Total Assets	$122,500

XYZ Company
Balance Sheet
12/31/xxxx

Liabilities & Equity

Current Liabilities	
Accounts Payable	$7,200
Wages Payable	3,600
Notes Payable	5,400
Taxes Payable	4,200
Total Current Liabilities	$20,400
Long Term Debt	35,700
Total Liabilities	$56,100
Common Stock	28,700
Retained Earnings	37,700
Total Liabilities & Equity	$122,500

Homework Problem, cont'd

|The projected sales for the forecast period is $165,000. Assume that the existing profit margin and payout ratio will be maintained in the forecast period. The firm estimates that additional net fixed asset investment of $18,000 will be required during the forecast period. Assume that all current assets are spontaneous except Other Current Assets which is assumed not to change. Assume that all current liabilities except Notes Payable are spontaneous.

A. Prepare the pro forma Balance Sheet and pro forma Income Statement. The EFR will be a plug number that makes the balance sheet balance like in the class example.

B. Using the existing financial statements as your basis, estimate firm XYZ's EFR for the forecast period again, but this time using the cookbook model. Also based on the cookbook equation, how much funding is expected to come from each of the internal sources of funds (change in SL and retained earnings). If firm XYZ must maintain a minimum current ratio of 1.8 and a maximum debt ratio of 0.50, how would you propose the EFR be financed (how much short term debt, long term debt, and equity)?

C. Based on your results in part B, prepare a Pro Forma Sources and Uses of Funds Statement to reflect the financing allocations that you decided on in part B. The only format change required is to break the total EFR down into the amounts of short term debt, long term debt, and new equity. You will have to use the numbers for ΔCA, ΔSL, addition to R.E., and EFR that you calculated in part B to make it balance, since they may be slightly different than those from part A. **Explain the basis for your financing allocations.**

Homework Problem, cont'd

Hints:

- Pro Forma TA = Existing TA + ΔCA + ΔNFA
- Max Pro Forma Total Liabilities = (D.R. Constraint)(Pro Forma TA)
- Max Additional TL = Max. Pro Forma TL –Existing TL
- Max Additional External Debt = Max Additional TL – ΔSL
- Min Additional External Equity = EFR - Max Additional External Debt
- Pro Forma CA = Existing CA + ΔCA
- Max Pro Forma CL = Pro Forma CA / CR Constraint
- Max Additional CL = Max Pro Forma CL – Existing CL
- Max Additional Notes Payable (N/P) = Max Additional CL - ΔSL
- Additional LTD = Max Additional External Debt - Max N/P

Check Answers

Pro forma EFR = $18,589

Cookbook EFR = $18,941

Financing Plan with constraints at their limits

- Additional Notes Payable: $2,820
- Additional LTD: $11,861
- Additional Equity: $4,260

A more conservative plan would use less debt, more equity.