Business 2019

Assignment 2

Can be done in groups of at most FOUR students

1. Consider the balance sheets and income statements for Sunrise, Inc. depicted in Table 1 and Table 2.

   (a) For year 2000, calculate Sunrise's cash flow from assets, the cash flow to creditors and the cash flow to shareholders.

   (b) Prepare Sunrise's 2000 statement of change in financial position. What were the main uses of cash in 2000?

   (c) Prepare the common-size balance sheets for Sunrise in 1999 and 2000. What observations can you make from these balance sheets?

   (d) Prepare the common-size income statements for Sunrise in 1999 and 2000. What observations can you make from these income statements?

   (e) Calculate, for 1999 and 2000, Sunrise's (i) current ratio, (ii) quick ratio and (iii) cash ratio. What can you say from these ratios?

   (f) Calculate, for 1999 and 2000, Sunrise's (i) total debt ratio, (ii) debt/equity ratio, (iii) equity multiplier and (iv) long-term debt ratio. What can you say from these ratios?

   (g) Calculate, for 1999 and 2000, Sunrise's (i) inventory turnover ratio, (ii) days' sales in inventory and (iii) asset turnover ratio. What can you say from these ratios?

(h) Calculate, for 1999 and 2000, Sunrise's (i) profit margin, (ii) return on assets and (iii) return on equity. Derive the Du Pont identity for both years.

Sunrise Inc.

1999 and 2000 Balance Sheets

Assets			*Liabilities and Owners' Equity*		
	2000	1999		2000	1999
Current assets			Current liabilities		
Cash	$1,075	$2,099	Accounts payable	$1,129	$1,095
Accounts receivable	1,623	1,203	Notes payable	208	195
Inventory	3,530	2,200	Total	$1,337	$1,290
Total	$6,228	$5,502			
			Long-term debt	$5,089	$5,118
Fixed assets			Owners' equity		
Net fixed assets	$10,230	$10,007	Common stock	$5,100	$4,800
			Retained earnings	4,932	4,301
			Total equity	$10,032	$9,101
Total assets	$16,458	$15,509	Total liabilities and equity	$16,458	$15,509

Table 1: Balance sheets for Sunrise Inc.

2. The most recent financial statements for Rosegarten Corporation are shown in Table 3 and Table 4. Sales for 2001 are projected to grow by 25 percent. The tax rate and the dividend payout rate will remain constant. Costs, current assets and accounts payable increase in proportions with sales.

   (a) If the firm is operating at full capacity and no new debt or equity is issued, what is the external financing needed to support the 25 percent growth rate?

   (b) Suppose now that the firm was operating at only 80 percent capacity in 2000. What is EFN now?

   (c) Assume the firm is operating at full capacity. If it wishes to keep a current ratio of at least 3 and a total debt ratio of at most 0.4, what is a possible financing

Sunrise Inc.

Income Statements for 1999 and 2000

		2000		1999
Sales		$7,550		$7,000
Cost of goods sold		(3,900)		(3,600)
Selling expenses		(1,100)		(1,050)
Depreciation		(350)		(315)
Earnings before interest and taxes (EBIT)		$2,200		$2,035
Interest		(500)		(435)
Taxable income		$1,700		$1,600
Taxes (35%)		(595)		(560)
Net income		$1,105		$1,040
Dividends	$474		$434	
Addition to retained earnings	$631		$606	

Table 2: Income statements for Sunrise Inc.

plan?

(d) Find Rosegarten's internal growth rate.

(e) Find Rosegarten's sustainable growth rate.

3. The most recent financial statements for AWOL Tours, Inc., are shown in Table 5 and Table 6. Sales for 2001 are projected to grow by 20 percent. Interest expense will remain constant; the tax rate and the dividend payout rate will also remain constant. Costs, other expenses, current assets and accounts payable increase in proportions with sales.

   (a) If the firm is operating at full capacity and no new debt or equity is issued, what is the external financing needed to support the 20 percent growth rate?

   (b) Suppose now that the firm was operating at only 90 percent capacity in 2000. What is EFN now?

Rosegarten Corporation

2000 Income Statement

Sales		$2,000
Costs		(1,600)
Taxable income		$400
Taxes (34%)		(136)
Net income		$264
Dividends	$88	
Addition to retained earnings	$176	

Table 3: Income statement for Rosegarten Corporation.

(c) Assume the firm is operating at full capacity, and suppose it wishes to keep its debt/equity ratio constant. What is EFN now?

(d) Redo problem (a) using sales growth rates of 25 and 30 percent. Illustrate graphically the relationship between EFN and the growth rate, and use this graph to determine the relationship between them. At what growth rate is the EFN equal to zero? Why is this internal growth rate different from that found by using the equation in the text?

Rosegarten Corporation

Balance Sheet as of December 31, 2000

Assets		*Liabilities and Owners' Equity*	
Current assets		Current liabilities	
Cash	$160	Accounts payable	$300
Accounts receivable	440	Notes payable	100
Inventory	600	Total	$400
Total	$1,200		
		Long-term debt	$800
Fixed assets		Owners' equity	
Net fixed assets	$1,800	Common stock	$800
		Retained earnings	1,000
		Total equity	$1,800
Total assets	$3,000	Total liabilities and equity	$3,000

Table 4: Balance sheet for Rosegarten Corporation.

AWOL Tours, Inc.

2000 Income Statement

Sales		$700,000
Costs		(550,000)
Other expenses		(10,000)
Earnings before interest and taxes		$140,000
Interest paid		(17,000)
Taxable income		$123,000
Taxes (35%)		(43,050)
Net income		$79,950
Dividends	$31,980	
Addition to retained earnings	$47,970	

Table 5: Income statement for AWOL Tours, Inc..

AWOL Tours, Inc.

Balance Sheet as of December 31, 2000

Assets		*Liabilities and Owners' Equity*	
Current assets		Current liabilities	
Cash	$20,000	Accounts payable	$50,000
Accounts receivable	35,000	Notes payable	5,000
Inventory	60,000	Total	$55,000
Total	$115,000		
		Long-term debt	$120,000
Fixed assets		Owners' equity	
Net fixed assets	$275,000	Common stock	$15,000
		Retained earnings	200,000
		Total equity	$215,000
Total assets	$390,000	Total liabilities and equity	$390,000

Table 6: Balance sheet for AWOL Tours, Inc..