

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

	<i>Assets</i>		<i>Liabilities and Owners' Equity</i>	
	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	<u>208</u> <u>195</u>
Inventory	<u>3,530</u>	<u>2,200</u>	Total	<u>\$1,337</u> <u>\$1,290</u>
Total	\$6,228	\$5,502		
			Long-term debt	<u>\$5,089</u> <u>\$5,118</u>
Fixed assets			Owners' equity	
Net fixed assets	<u>\$10,230</u>	<u>\$10,007</u>	Common stock	\$5,100 \$4,800
			Retained earnings	<u>4,932</u> <u>4,301</u>
			Total equity	<u>\$10,032</u> <u>\$9,101</u>
Total assets	<u>\$16,458</u>	<u>\$15,509</u>	Total liabilities and equity	<u>\$16,458</u> <u>\$15,509</u>

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	<u>(350)</u>	<u>(315)</u>
Earnings before interest and taxes (EBIT)	\$2,200	\$2,035
Interest	<u>(500)</u>	<u>(435)</u>
Taxable income	\$1,700	\$1,600
Taxes (35%)	<u>(595)</u>	<u>(560)</u>
Net income	<u><u>\$1,105</u></u>	<u><u>\$1,040</u></u>
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	<u>(1,600)</u>
Taxable income	\$400
Taxes (34%)	<u>(136)</u>
Net income	<u><u>\$264</u></u>
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

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

Table 4: Balance sheet for Rosegarten Corporation.

AWOL Tours, Inc.

2000 Income Statement

Sales	\$700,000
Costs	(550,000)
Other expenses	<u>(10,000)</u>
Earnings before interest and taxes	\$140,000
Interest paid	<u>(17,000)</u>
Taxable income	\$123,000
Taxes (35%)	<u>(43,050)</u>
Net income	<u><u>\$79,950</u></u>
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

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

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