

SPEA V361 Problem Set 1

- (10%+20%) Rosengarten anticipates a 15% growth in sales for the upcoming year. Provide the Pro Forma Income Statement and Pro Forma Balance Sheet for Rosengarten Corporation. Assume that Rosengarten maintains a practice of distributing a consistent fraction of net income as a cash dividend, and that costs remain a constant percentage of sales.

ROSENGARTEN CORPORATION Income Statement

Sales	\$ 1,000
Costs	<u>833</u>
Taxable income	\$ 167
Taxes (21%)	<u>35</u>
Net income	<u>\$ 132</u>
Dividends	\$ 44
Addition to retained earnings	88

ROSENGARTEN CORPORATION Balance Sheet

	Assets		Liabilities and Owners' Equity		
	\$	Percentage of Sales		\$	Percentage of Sales
Current assets			Current liabilities		
Cash	\$ 160	16%	Accounts payable	\$ 300	30%
Accounts receivable	440	44	Notes payable	<u>100</u>	<u>n/a</u>
Inventory	<u>600</u>	<u>60</u>	Total	<u>\$ 400</u>	<u>n/a</u>
Total	<u>\$ 1,200</u>	<u>120</u>	Long-term debt	\$ 800	n/a
Fixed assets			Owners' equity		
Net plant and equipment	<u>\$ 1,800</u>	<u>180</u>	Common stock and paid-in surplus	\$ 800	n/a
			Retained earnings	<u>1,000</u>	<u>n/a</u>
			Total	<u>\$ 1,800</u>	<u>n/a</u>
Total assets	<u>\$ 3,000</u>	<u>300%</u>	Total liabilities and owners' equity	<u>\$ 3,000</u>	<u>n/a</u>

2. (5%+5%+5%+5%) If the Hoffman Company anticipates a 12% growth in the upcoming year, what are the required assets, addition to retained earnings, external financing needed, and Debt-Equity Ratio (assumed no debt policy)? Below are the income statement and balance sheet for the Hoffman Company. Consider the company's practice of distributing a consistent fraction of net income as a cash dividend, and the assumption that costs remain a constant percentage of sales.

Income Statement

Sales	\$500.0
Costs	<u>416.5</u>
Taxable income	\$ 83.5
Taxes (21%)	<u>17.5</u>
Net income	<u>\$ 66.0</u>
Dividends	\$22
Addition to retained earnings	44

Balance Sheet

	Assets		Liabilities and Owners' Equity		
	\$	Percentage of Sales		\$	Percentage of Sales
Current assets	\$200	40%	Total debt	\$250	n/a
Net fixed assets	<u>300</u>	<u>60</u>	Owners' equity	<u>250</u>	<u>n/a</u>
Total assets	<u>\$500</u>	<u>100%</u>	Total liabilities and owners' equity	<u>\$500</u>	<u>n/a</u>

3. Use the following information to answer this question:

Bayside, Incorporated
2021 Income Statement
(\$ in thousands)

Net sales	\$
	6,190
Cost of goods sold	4,500
Depreciation	430
Earnings before interest and taxes	<u>\$</u> 1,260
Interest paid	<u>34</u>
Taxable income	<u>\$</u> 1,226
Taxes	<u>257</u>
Net income	<u>\$ 969</u>

Bayside, Incorporated
2020 and 2021 Balance Sheets
(\$ in thousands)

	2020	2021		2020	2021
Cash	\$ 145	\$ 250	Accounts payable	\$ 1,730	\$ 1,720
Accounts received	1,110	950	Long-term debt	870	670
Inventory	1,825	2,100	Common stock	3,360	3,340
Total	<u>\$ 3,080</u>	<u>\$ 3,300</u>	Retained earnings	940	1,190
Net fixed assets	3,820	3,620			
Total assets	<u>\$ 6,900</u>	<u>\$ 6,920</u>	Total liabilities & equity	<u>\$ 6,900</u>	<u>\$ 6,920</u>

What is the return on equity for 2021? Write down your calculation. (10%)

4. Use the following information to answer this question:

Windswept, Incorporated
2021 Income Statement
(\$ in millions)

Net sales	\$
	10,700
Cost of goods sold	8,050
Depreciation	380
Earnings before interest and taxes	\$ 2,270
Interest paid	104
Taxable income	\$ 2,166
Taxes	455
Net income	\$ 1,711

Windswept, Incorporated
2020 and 2021 Balance Sheets
(\$ in millions)

	2020	2021		2020	2021
Cash	\$ 390	\$ 415	Accounts payable	\$ 1,970	\$ 1,885
Accounts received	1,150	1,050	Long-term debt	1,090	1,550
Inventory	1,920	1,790	Common stock	3,400	3,160
Total	\$ 3,460	\$ 3,255	Retained earnings	670	920
Net fixed assets	3,670	4,260			
Total assets	\$ 7,130	\$ 7,515	Total liabilities & equity	\$ 7,130	\$ 7,515

What were the total dividends paid for 2021? Write down your calculation. (10%)

5. Use the following information to answer this question:

Windswept, Incorporated
2021 Income Statement
(\$ in millions)

Net sales	\$
	8,750
Cost of goods sold	7,300
Depreciation	305
Earnings before interest and taxes	<u>\$</u> 1,145
Interest paid	<u>72</u>
Taxable income	<u>\$</u> 1,073
Taxes	<u>225</u>
Net income	<u>\$ 848</u>

Windswept, Incorporated
2020 and 2021 Balance Sheets
(\$ in millions)

	2020	2021		2020	2021
Cash	\$ 150	\$ 165	Accounts payable	\$ 1,190	\$ 1,367
Accounts received	920	730	Long-term debt	950	1,128
Inventory	1,520	1,530	Common stock	3,210	2,900
Total	<u>\$ 2,590</u>	<u>\$ 2,425</u>	Retained earnings	460	710
Net fixed assets	3,220	3,680			
Total assets	<u>\$ 5,810</u>	<u>\$ 6,105</u>	Total liabilities & equity	<u>\$ 5,810</u>	<u>\$ 6,105</u>

Windswept, Incorporated, has 300 million shares of stock outstanding. Its price-earnings ratio for 2021 is 16. What is the market price per share of stock? Write down your calculation. (10%)

6. Use the following information to answer this question:

Windswept, Incorporated
2021 Income Statement
(\$ in millions)

Net sales	\$
	10,100
Cost of goods sold	8,000
Depreciation	475
Earnings before interest and taxes	\$ 1,625
Interest paid	102
Taxable income	\$ 1,523
Taxes	320
Net income	\$ 1,203

Windswept, Incorporated
2020 and 2021 Balance Sheets
(\$ in millions)

	2020	2021		2020	2021
Cash	\$ 290	\$ 325	Accounts payable	\$ 1,640	\$ 1,850
Accounts received	1,130	1,030	Long-term debt	1,080	1,405
Inventory	1,800	1,760	Common stock	3,380	3,040
Total	\$ 3,220	\$ 3,115	Retained earnings	660	910
Net fixed assets	3,540	4,090			
Total assets	\$ 6,760	\$ 7,205	Total liabilities & equity	\$ 6,760	\$ 7,205

What is the return on equity for 2021? Write down your calculation. (10%)

7. Use the following information to answer this question:

Windswept, Incorporated
2021 Income Statement
(\$ in millions)

Net sales	\$
	9,150
Cost of goods sold	7,590
Depreciation	435
Earnings before interest and taxes	\$ 1,125
Interest paid	98
Taxable income	\$ 1,027
Taxes	359
Net income	\$ 668

Windswept, Incorporated
2020 and 2021 Balance Sheets
(\$ in millions)

	2020	2021		2020	2021
Cash	\$ 190	\$ 220	Accounts payable	\$ 1,230	\$ 1,385
Accounts received	920	820	Long-term debt	1,080	1,290
Inventory	1,700	1,625	Common stock	3,300	2,980
Total	\$ 2,810	\$ 2,665	Retained earnings	570	820
Net fixed assets	3,370	3,810			
Total assets	\$ 6,180	\$ 6,475	Total liabilities & equity	\$ 6,180	\$ 6,475

What is the days' sales in receivables for 2021? Write down your calculation. (10%)